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ABSTRACT

This publication provides educators, policymakers, and researchers with vocational education data through 1992. It begins with text and figures covering these key questions: what is vocational education? how widespread is vocational education participation? what types of vocational education do students take? to what extent do students with different demographic characteristics and disadvantaged or disabled students participate? how much academic preparation do vocational coursetakers receive? what outcomes are associated with participation? and what are other school-to-work programs schools and institutions offer? Appendix A presents extensive tables supporting the findings. The tables provide trend information on the decade spanning 1982-92 and information on public high school graduates and teachers and on nonbaccalaureate students in a variety of postsecondary institutions. The report also covers a number of key issues emphasized in the 1990 Perkins Act and echoed in the School-to-Work Opportunities Act: integration of academic and vocational education, access of special populations to high quality programs, and access of individuals to programs nontraditional for their sex. Information is also provided on most of the targeted populations identified in section 421 of the 1990 Perkins Act. Other appendixes contain a description of how variables were constructed to provide information on targeted populations, glossary, and 30-item bibliography. (YLB)

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VOCATIONAL EDUCATION IN THE UNITED STATES: THE EARLY 1990s

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VOCATIONAL EDUCATION IN THE UNITED STATES: THE EARLY 1990s

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National Center for Education Statistics

The purpose of the Center is to collect and report "statistics and information showing the condition and progress of education in the United States and other nations in order to promote and accelerate the improvement of American education."—Section 402(b) of the National Education Statistics Act of 1994 (20 U.S.C. 9001).

November 1995

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COMMISSIONER'S STATEMENT

In 1987, the National Center for Education Statistics instituted a new approach to collecting and reporting data on vocational education. Under the new approach, vocational education data is collected through several general purpose surveys rather than a separate vocational education questionnaire. This arrangement allows NCES to place vocational education activities within the broader context of the total education program and provides for a broader array of data collection vehicles.

This publication is the second effort on the part of the National Center for Education Statistics to compile comprehensive information on vocational education in the United States. The first such effort was *Vocational Education in the United States: 1969-1990*. Although both publications contain data on vocational education at both the secondary and postsecondary levels, there are differences. *Vocational Education in the United States: The Early 1990s* relies on a synthesis of data from the 127 tables throughout the publication; the text in this publication focuses on major questions about vocational education. *Vocational Education in the United States: 1969-1990* had about one page of text dedicated separately to each of the 60 tables in that publication. The data in this publication are drawn from seven surveys conducted by NCES and two conducted by other organizations.

NCES intends to continue producing a compendium of statistics on vocational education every few years. Future publications may try different analytic approaches, such as using indicators to analyze data on vocational education. We welcome your comments about NCES' publications on vocational education, please send them to: Jim Houser, Room 402J, 555 New Jersey Avenue, N.W., Washington D.C. 20208-5650.

Jeanne E. Griffith
Acting Commissioner

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VOCATIONAL EDUCATION IN THE UNITED STATES: THE EARLY 1990S

INTRODUCTION

With passage of the School-to-Work Opportunities Act (STWOA) of 1994, national attention has turned to the systems in place in this country for educating and training people for work. Historically, vocational education has made up the lion's share of such efforts. This publication provides educators, policymakers, and researchers with the most current data on the vocational education enterprise and some data that are available on other school-to-work activities. Specifically, the publication addresses the following questions:

- What is vocational education?
- How widespread is participation in vocational education?
- What types of vocational education do students take?
- Do students take coherent sequences of vocational courses?
- To what extent do students with different demographic characteristics participate in vocational education?
- To what extent do students who are disadvantaged or have disabilities participate in vocational education?
- How much academic preparation do vocational coursetakers receive?
- What outcomes are associated with participation in vocational education?
- What other school-to-work programs do schools and institutions offer?

While most of the above questions are addressed for both the secondary and postsecondary levels, some additional issues particular to each level of education are also discussed.

This report, which was produced about 3 years after publication of *Vocational Education in the United States: 1969-1990*, extends the available vocational education data through 1992, and provides some trend information on the decade spanning 1982-1992. It also provides information on public high school graduates and teachers and on nonbaccalaureate students (those pursuing less than a bachelor's degree) in a variety of postsecondary institutions. Additionally, this report covers a number of key issues emphasized in the Carl D. Perkins Vocational and Applied Technology Education Act Amendments of 1990 (1990 Perkins Act)—and echoed in STWOA. These include integration of academic and vocational education, access of special populations to quality programs, and access of individuals to programs nontraditional for their sex. Finally, this report provides information on most of the targeted populations identified in section 421 of the 1990 Perkins Act:[1]

- Women;
- American Indians;
- Individuals with handicaps;
- Individuals of limited English proficiency;
- Economically disadvantaged students (including students in rural and urban areas);
- Single parents;
- Incarcerated youths and adults; and
- Minorities.

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[1] Section 421 of the 1990 Perkins Act directs the Secretary of Education to establish a national vocational education data system. This publication is in part a response to this legislative mandate. 1990 Perkins Act, Public Law 101-392, Sec. 421.

Appendix B describes how variables were constructed to provide information on the above populations and explains why information on other targeted populations was not included.

This publication incorporates data from nine national databases. Effort was made to include the most recent data that were available during preparation of the report. However, because of the staggered timing of different national data collection efforts, not all desired data were available. Consequently, some of the information presented here is not parallel at the secondary and postsecondary education levels, since the available data differed somewhat at the two levels. Appendix B describes the national datasets that were included in the report and identifies areas where additional information could be provided in the future.

This report begins with text and figures covering the key questions outlined above and highlighting the most important findings. Extensive tables supporting these findings are presented in appendix A, which may be used by readers to investigate a broad range of questions related to vocational education and school-to-work in general. A guide to the tables is provided at the beginning of appendix A; a glossary of key terms used in the report in appendix C; and a bibliography in appendix D.

KEY QUESTIONS

What is vocational education?

The 1990 Perkins Act defines vocational education as "organized educational programs offering a sequence of courses which are directly related to the preparation of individuals in paid or unpaid employment in current or emerging occupations requiring other than a baccalaureate or advanced degree."[2] While vocational education is provided at both the secondary and postsecondary levels, its focus differs somewhat at each level.

Secondary Vocational Education

The objectives of vocational education are more varied at the secondary than at the postsecondary level. Secondary vocational courses can be classified into three types: (1) consumer and homemaking education; (2) general labor market preparation; and (3) specific labor market preparation (figure 1).[3] Specific labor market preparation courses teach students the skills needed to enter a particular occupational field. Such courses can be grouped into the following occupational program areas:[4]

- Agriculture;
- Business and office;
- Marketing and distribution;
- Health;
- Occupational home economics;
- Trade and industry (including construction, mechanics and repairs, and precision production); and
- Technical and communications.

In addition to this occupationally specific curriculum, some secondary vocational courses provide general labor market preparation, teaching general employment skills—such as introductory typing or wordprocessing, industrial arts, career education, and applied academic skills—rather than preparing students for paid employment in a specific occupa-

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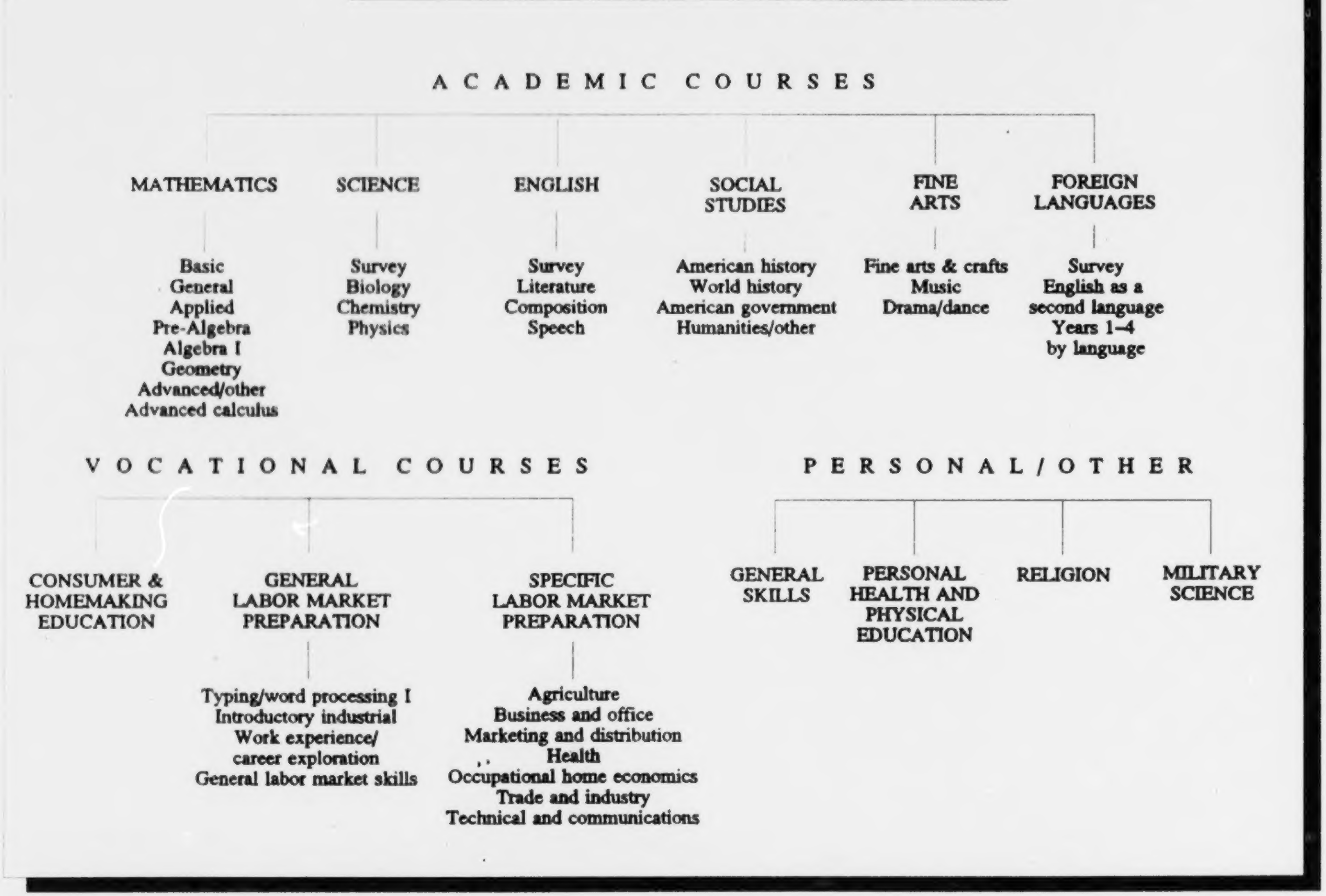
[2] The Act goes on to say, "Such programs shall include competency-based applied learning which contributes to an individual's academic knowledge, higher-order reasoning, and problem-solving skills, work attitudes, general employability skills, and the occupational-specific skills necessary for economic independence as a productive and contributing member of society. Such term also includes applied technology education." 1990 Perkins Act, Public Law 101-392, Sec. 521 (41).

[3] A.G. Gifford, E.G. Hoachlander, and J.E. Tuma, ***The Secondary School Taxonomy Final Report*** (Washington, D.C.: U.S. Department of Education, National Assessment of Vocational Education, February 1989).

[4] For simplicity's sake, the text refers to specific labor market preparation education as the occupationally specific curriculum and to specific labor market preparation programs as occupational programs.

Figure 1—Secondary school taxonomy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Literature
Composition
Speech
SOCIAL STUDIES
American history
World history
American government
Humanities/other
FINE ARTS
Fine arts & crafts
Music
Drama/dance
FOREIGN LANGUAGES
Survey
English as a second language
Years 1–4 by language
VOCATIONAL COURSES
CONSUMER & HOMEMAKING EDUCATION
GENERAL LABOR MARKET PREPARATION
Typing/word processing I
Introductory industrial
Work experience/ career exploration
General labor market skills
SPECIFIC LABOR MARKET PREPARATION
Agriculture
Business and office
Marketing and distribution
Health
Occupational home economics
Trade and industry
Technical and communications
PERSONAL/OTHER
GENERAL SKILLS
PERSONAL HEALTH AND PHYSICAL EDUCATION
RELIGION
MILITARY SCIENCE

SOURCE: A.G. Gifford, E.G. Hoachlander, J.E. Tuma, *The Secondary School Taxonomy* (Washington, D.C.: U.S. Department of Education, National Assessment of Vocational Education, February 1989).

tion. Finally, consumer and homemaking education courses, unlike occupational home economics courses, prepare students for unpaid employment in the home. While this publication provides information on all three types of secondary vocational courses, it focuses primarily on the occupationally specific curriculum.

Vocational education at the secondary level has traditionally had several objectives, including providing students with general employability skills and preparing them to enter paid and unpaid employment in specific occupations. However, in recent years, the goals of vocational education have expanded to include preparing students not only for entry into work but also for career advancement and entry into further education and training. For instance, educators have been called upon to integrate academic and vocational education.

Secondary vocational education is provided primarily through three types of public high schools: (1) comprehensive high schools (the typical U.S. high school); (2) area vocational schools (regional facilities that students attend part of a day to receive their occupational training); and (3) full-time vocational high schools (schools that offer academic studies but focus on preparing students for work in a particular occupation or industry).[5] The latter two types are referred to collectively as vocational schools. The National Assessment of Vocational Education (NAVE) recently found that most secondary vocational education is provided in comprehensive high schools, with vocational schools enrolling about 10 percent of secondary students and accounting for about 12 percent of vocational coursetaking.[6] Because of the limited capacity of available datasets to provide information on the three types of schools, this publication generally treats secondary vocational education as a single system.[7]

While occupationally specific courses are organized into program areas, high school students typically do not formally enroll in an occupational program. Instead, they may take one or more courses in a single occupational program, or courses scattered throughout the occupationally specific curriculum. Moreover, while the majority of students take occupational courses during their high school careers, they do so for a variety of reasons.[8] Some students take introductory business or technical and communications courses to gain hands-on computer experience, whereas others are required by their high schools to complete a vocational course in order to graduate. Only a minority of students complete a coherent sequence of courses preparing them for employment in a specific occupational field.[9] Indeed, the sequence of courses defining an occupational program varies among high schools and school districts across the country.

Consequently, it is not possible—nor very useful—to label students as "vocational students" based on a single definition. Instead, this publication provides several alternative measures of participation in vocational and occupationally specific education at the secondary level. The smallest unit of measure is a course or a credit, and data are provided on the percentage of public high school graduates completing at least one course and on the average number of credits they earned in different vocational and occupational areas.[10] Some tables provide information on heavy vocational coursetakers, those earning large numbers of vocational or occupationally specific credits.

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[5] In addition to serving high school students, area vocational schools often enroll postsecondary (for-credit) and adult (noncredit) students.

[6] Section 403 of the 1990 Perkins Act called upon the Office of Education Research and Improvement to conduct a national assessment of vocational education to provide descriptions and evaluations of a broad range of issues pertaining to vocational education (1990 Perkins Act, Public Law 101-392, Sec. 403). The NAVE published its final report to Congress in July 1994 [National Assessment of Vocational Education, *Final Report to Congress* (Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement, Office of Research, 1994)]. The statistics provided in the above paragraph can be found in Volume II, chapter 1 of the report.

[7] The exceptions are data on secondary school teachers (tables 114–127) and on school-to-work programs (tables 97–104), which do distinguish between comprehensive high schools and vocational schools.

[8] E. Gareth Hoachlander, Phillip Kaufman, Karen Levesque, and James Houser, *Vocational Education in the United States: 1969–1990* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 1992).

[9] National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement, Office of Research, 1994).

Additionally, this publication seeks to address the emphasis in the 1990 Perkins Act on providing coherent sequences of vocational courses. The federal regulations associated with the 1990 Perkins Act defined a coherent sequence of courses as "a series of courses in which vocational and academic education are integrated, and which directly relates to, and leads to, both academic and occupational competencies."[11] However, federal datasets rely largely on analyses of student transcripts to determine high school course-taking patterns. While both flexible and reliable, these transcript studies have limited capacity to provide information on the content of courses, such as what specific competencies they teach. Alternatively, this publication uses several measures of concentration in vocational education to examine graduates' propensity to take a series of related vocational courses. Specifically, public high school graduates are identified as vocational "concentrators" if they earned 3 or more credits in a single occupational program, and as vocational "specialists" if they earned 4 or more credits in a single program with at least 2 of these credits beyond the introductory level.[12] Data are also provided on the levels of occupational courses graduates completed, including introductory, second- or higher level, and specialty courses.

Postsecondary Vocational Education

Vocational education at the nonbaccalaureate postsecondary level primarily focuses on providing occupationally specific preparation (figure 2). Postsecondary-level occupational programs generally parallel the program areas identified at the secondary level:

- Agriculture;
- Business and office;
- Marketing and distribution;
- Health;
- Home economics;
- Technical education (including protective services, computers and data processing, engineering and science technologies, and communication technologies); and
- Trade and industry.

While emphasis at the postsecondary level has traditionally been on providing students with skills needed to enter a particular occupational field, these skills have typically been at a more advanced level than those provided through secondary occupational programs.

Postsecondary vocational education is offered at several types of institutions, including public and private, and 4-year and less-than-4-year postsecondary institutions. This publication provides comparable information on participation in six different institutional types: public 4-year institutions; private, nonprofit 4-year institutions; public 2- to 3-year institutions (community colleges); public vocational-technical institutes; private, nonprofit less-than-4-year institutions; and private proprietary (for-profit) institutions.

As was the case at the secondary level, postsecondary occupational education is delivered in the form of courses that are organized into program areas. In a few cases, students are required to enroll formally in an occupational program. In

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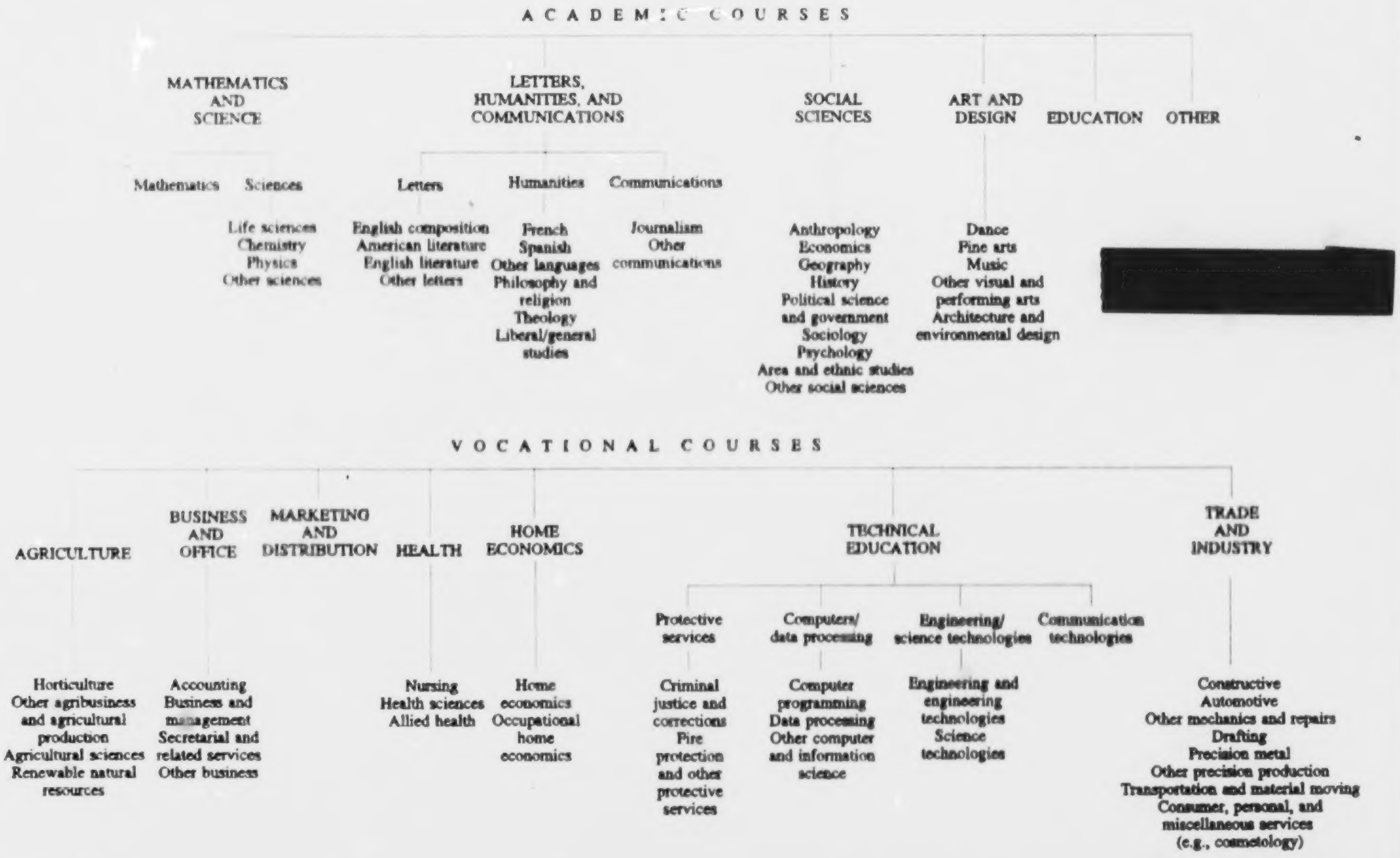
[10] In secondary education, 1 Carnegie unit is awarded for the completion of a course that meets 1 period per day for 1 year. For simplicity's sake, this publication refers to a Carnegie unit as a credit.

[11] Vocational and Applied Technology Education Programs—General Provisions, 34 CFR §400.4.

[12] These definitions were originally used by the NAVE. National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: 1994).

Figure 2—Classification of academic and vocational courses for less-than-4-year postsecondary institutions


ACADEMIC COURSES
MATHEMATICS AND SCIENCE
Mathematics
Sciences
Life sciences
Chemistry
Physics
Other sciences
LETTERS, HUMANITIES, AND COMMUNICATIONS
Letters
English composition
American literature
English literature
Other letters
Humanities
French
Spanish
Other languages
Philosophy and religion
Theology
Liberal/general studies
Communications
Journalism
Other communications
SOCIAL SCIENCES
Anthropology
Economics
Geography
History
Political science and government
Sociology
Psychology
Area and ethnic studies
Other social sciences
ART AND DESIGN
Dance
Fine arts
Music
Other visual and performing arts
Architecture and environmental design
EDUCATION
OTHER
[redacted]
VOCATIONAL COURSES
AGRICULTURE
Horticulture
Other agribusiness and agricultural production
Agricultural sciences
Renewable natural resources
BUSINESS AND OFFICE
Accounting
Business and management
Secretarial and related services
Other business
MARKETING AND DISTRIBUTION
HEALTH
Nursing
Health sciences
Allied health
HOME ECONOMICS
Home economics
Occupational home economics
TECHNICAL EDUCATION
Protective services
Criminal justice and corrections
Fire protection and other protective services
Computers/ data processing
Computer programming
Data processing
Other computer and information science
Engineering/ science technologies
Engineering and engineering technologies
Science technologies
Communication technologies
TRADE AND INDUSTRY
Constructive
Automotive
Other mechanics and repairs
Drafting
Precision metal
Other precision production
Transportation and material moving
Consumer, personal, and miscellaneous services (e.g., cosmetology)

SOURCE: Susan P. Choy and Laura J. Horn, *A Guide to Using Postsecondary Transcript Data and an Overview of Course Taking in Less-than-Four-Year Postsecondary Institutions*, (Berkeley: National Center for Research in Vocational Education, March 1992).

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other cases, students may be required to declare a major upon enrolling in an institution. However, students often sample courses from a variety of program areas, whether or not they have declared a major. This tendency to "mill around" in postsecondary vocational education has been well documented.[13] Moreover, postsecondary institutions, particularly community colleges, serve a student population with diverse educational goals. Some students enter with the intention of completing a degree or certificate, while others intend only to take one or a few courses and then leave. In most cases, it is only possible to identify with accuracy vocational program participants once students have completed a program and obtained a degree or certificate. However, this captures only a portion of nonbaccalaureate postsecondary students.

Because of the timing of this publication, transcript data were unavailable for detailed analysis of participation patterns in postsecondary vocational education. Instead, this report relies on students' self-reported majors. Consequently, in contrast to the secondary level, the discussion of postsecondary vocational education does not provide information on varying levels of participation by students.

How widespread is participation in vocational education?

Secondary Level

Most public high school students participate in vocational education. In 1992, almost all public high school graduates (97 percent) completed at least one vocational education course, and 87 percent completed at least one occupationally specific course (table 1). On average, graduates completed the equivalent of almost four full-year courses in vocational education (3.8 credits), with two and a half of these courses in occupational program areas (table 4).[14]

Although public high school graduates earned greater numbers of total and academic credits over the decade from 1982 to 1992, credits earned in vocational education decreased (table 51). Between 1982 and 1992, total credits earned by high school graduates increased about 11 percent (from 21 to 24 credits), while academic credits earned rose about 22 percent (from 14 to 17 credits). In contrast, over the same period, the average number of vocational credits earned by high school graduates declined by almost 1 full credit, or by about 17 percent. By 1992, vocational coursework made up only 16 percent of the total coursework completed by high school graduates, down from 21 percent in 1982 (figure 3). The National Assessment of Vocational Education (NAVE) found that this declining vocational enrollment might be attributed to several factors, such as increasing high school graduation requirements over the 1982-1992 decade and the vulnerability of secondary vocational programs to local economic conditions.[15]

Between 1982 and 1992, participation in the occupationally specific curriculum was somewhat more stable than in other vocational areas (tables 50 and 53). The percentage of public high school graduates completing at least one occupational course remained about the same (at approximately 87 percent), and the average number of credits earned by graduates in occupational programs decreased over the decade by less than half a credit (from 2.9 to 2.5 credits) or by about 14 per-

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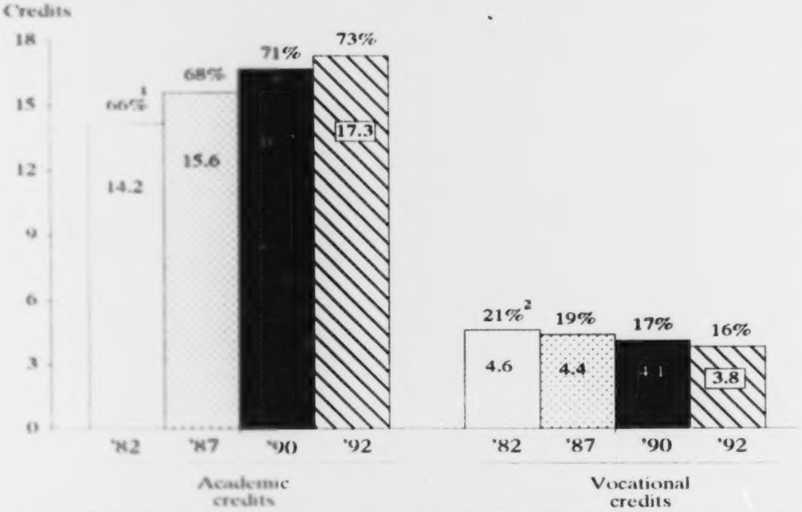
[13] W. Norton Grubb, *Access, Achievement, Completion, and "Milling Around" in Postsecondary Vocational Education* (Berkeley: National Center for Research in Vocational Education, April 1989).

[14] The recent NAVE found that vocational education is widely available in U.S. high schools. About three-quarters of all comprehensive high schools offer occupational programs, while more than 90 percent offer, at minimum, introductory vocational courses. Additionally, almost all comprehensive high schools either offer vocational courses or provide access to area vocational schools. National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: 1994).

[15] Local economic conditions affecting vocational programs included both the loss of jobs for which programs trained students and the loss of educational funding that often accompanied a poor economy. Ibid.

Figure 3—Average number of credits earned by public high school graduates in academic and vocational courses, and the percentage of total credits earned in high school that those credits represent: 1982–1992



[1] The 14.2 academic credits earned on average by 1982 public high school graduates represented 66 percent of the total credits earned by those graduates.

[2] The 4.6 vocational credits earned on average by 1982 public high school graduates represented 21 percent of the total credits earned by those graduates.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-up and High School Transcript Files," 1992.

cent. In contrast, both the percentages of graduates participating in the consumer and homemaking and the general labor market preparation curricula and the average number of credits graduates earned in these areas declined significantly over the decade (with average credits earned declining about 29 and 36 percent in these respective areas).

Postsecondary Level

The NAVE found that 5.8 million students were enrolled in postsecondary vocational education in 1990, making up about 35 percent of all undergraduate postsecondary enrollments.[18] Vocational enrollments represented an even larger share of the nonbaccalaureate undergraduate population, with about one-half of these students reporting that they were majoring in a vocational program area (table 58). In contrast, one in four nonbaccalaureate postsecondary students reported an academic major and one in four were taking personal or avocational courses (for example, basic skills and citizenship activities).[17] Nonbaccalaureate students at all types of postsecondary institutions reported majoring in vocational programs, although the proportion of the nonbaccalaureate student body that was vocationally oriented varied by institution type (table 64). For example, at public 4-year postsecondary institutions about one-third of nonbaccalaureate students reported majoring in vocational programs, while at public vocational-technical institutes 90 percent of nonbaccalaureate students were in the vocational curriculum.[18]

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[18] Ibid., chapter 2.

[17] Although the National Postsecondary Student Aid Study (NPSAS) excludes students taking not-for-credit courses, about one in four nonbaccalaureate students in the 1989–90 NPSAS sample reported majoring in program areas that were classified by the Classification of Instructional Programs (CIP) as "personal improvement or leisure" programs. See *A Classification of Instructional Programs*, 1990 Edition, Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, U.S. Government Printing Office, 1990.

What types of vocational education do students take?

Secondary Level

Business was the most popular occupational program at the high school level, with more than half of all 1992 high school graduates completing at least one business course (table 16). Business was followed in popularity by trade and industry and then by technical and communications programs.

Although overall participation in the occupationally specific curriculum declined somewhat over the decade from 1982 to 1992, trends varied by program area. The percentage of graduates completing at least one course in the technical and communications area, as well as the average number of credits earned in this program area, increased between 1982 and 1992 (tables 55 and 56). In contrast, both the percentage of graduates completing at least one trade and industry course and the average number of trade and industry credits earned declined over the decade. The NAVE found that these occupational enrollment patterns appeared to follow labor market trends.[19]

Postsecondary Level

As was the case at the secondary level, the most popular postsecondary vocational program was business, with about 17 percent of all nonbaccalaureate students declaring a major in this area (table 70). Business was followed in popularity by health (11 percent) and then trade and industry (8 percent) programs.[20] The combined technical fields (computers and data processing, engineering and science technologies, protective services, and communications technologies) accounted for 12 percent of all nonbaccalaureate majors (figure 4).

Program enrollment varied significantly by institution type (table 70). Students at private proprietary; private, nonprofit 4-year; and public 2- to 3-year institutions were more likely to major in business than students at public 4-year institutions. In contrast, students at public vocational-technical institutes and private proprietary schools were much more likely to major in trade and industry than students at all other postsecondary institutions.

Do students take coherent sequences of vocational courses?

Vocational Concentration and Specialization at the Secondary Level

The NAVE found that concentrating one's vocational coursetaking resulted in higher earnings, especially if students entered training-related jobs.[21] However, few 1992 graduates completed a sequence of courses providing significant preparation in a single occupational area. About 24 percent of high school graduates were vocational "concentrators," earning 3 or more credits in a single occupational program, and about 8 percent of graduates were vocational "specialists," earning 4 or more credits in a single program with at least 2 of these credits beyond the introductory level (tables 34 and 37). Lack of focused coursetaking was not restricted to the vocational curriculum. The majority of high school graduates (60 percent)

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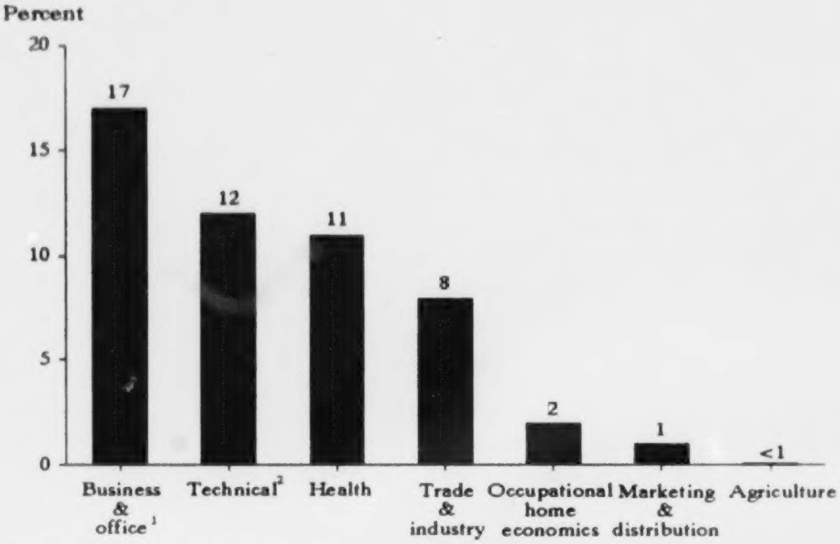
[18] Although all students enrolled in public vocational-technical institutes are typically considered to be vocational, some of the students surveyed declared they were enrolled in academic programs such as law, education, and journalism and communications.

[19] National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: 1994).

[20] Students majored in health and in trade and industry programs at statistically similar rates.

[21] National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 6 (Washington, D.C.: 1994).

Figure 4—Percentage of nonbaccalaureate postsecondary students majoring in vocational fields, by program area: 1989-90



[1] Of all nonbaccalaureate postsecondary students, 17 percent reported majoring in business and office.
[2] Technical combines: computers/data processing, engineering/science technologies, protective services, and communications technologies program areas.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

failed to meet the criteria for either the college preparatory or vocational specializations (figure 5 and table 34).[22]

While graduates were more likely to complete at least one course in business than in any other occupational area, they were more likely to concentrate in trade and industry programs. Specifically, 10 percent of 1992 high school graduates earned 3 or more credits in trade and industry, while 8 percent earned this number of business credits (table 37). Nearly half of all vocational concentrators concentrated in the trade and industry curriculum, although business was the most frequent vocational concentration among college preparatory graduates. Technical and communications and health programs had the fewest concentrators among all graduates, perhaps due to a lack of available courses. The disparity between a high level of coursetaking and low level of concentration in business and in technical and communications may be due to students electing not to concentrate in these areas. The NAVE attributed the disparity to many students seeking computer-related coursework through these programs rather than specific occupational preparation.[23]

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[22] Graduates were classified as "college preparatory" if they completed 4 or more credits in English; 3 or more credits in math, with 1 or more of those credits in algebra or higher; 3 or more credits in science, with 1 or more of those credits in chemistry or physics; and 2 or more credits in a single foreign language. Students who met both the vocational specialist and college preparatory criteria were included in the vocational specialist group.

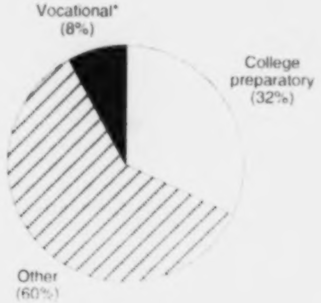
[23] National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: 1994).

Levels of Vocational Coursetaking at the Secondary Level

High levels of vocational coursetaking in high school did not always mean that graduates completed advanced occupational courses. In fact, 20 percent of 1992 high school graduates who earned 8 or more vocational credits and about 25 percent of those who earned 4 or more occupationally specific credits did not take a single occupational course above the introductory level (table 25). Among all graduates, twice as many took introductory occupational courses as took advanced ones (75 percent compared with 35 percent).[24]

Rates of advanced course completion varied by program concentration. Vocational concentrators in marketing were more likely than concentrators in other program areas to take advanced courses in their area of concentration (86 percent of marketing concentrators took advanced marketing courses) (table 31).[25] In contrast, concentrators in occupational home economics were less likely than those in most other program areas to take advanced courses in their concentration (40 percent took such courses).[26]

Figure 5—Percentage of 1992 public high school graduates, by area of specialization



*Among 1992 public high school graduates, 8 percent specialized in vocational education, earning 4.00 or more credits in a single occupationally specific program area, with a least 2.00 of those credits beyond the introductory level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education LongitudinalStudy, "Second Follow-Up and High School Transcript Files," 1992.

To what extent do students with different demographic characteristics participate in vocational education?

Sex and race-ethnicity were related to differences in participation in vocational education at both the secondary and postsecondary levels.

Secondary Level

High school vocational course-taking patterns differed for males and females. Male graduates in 1992 earned about one-third more occupationally specific credits, while female graduates earned almost twice as many consumer and homemaking education credits (table 4). Furthermore, the percentages of males and females completing at least one occupational course differed significantly in all program areas except marketing (table 16). In particular, males in 1992 were more than twice as likely to complete at least one course in agriculture and in trade and industry, while females were more than twice as likely to complete at least one course in health and in occupational home economics (figure 6).

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[24] The NAVE found that throughout 1982–1992 graduates earning large numbers of vocational credits were less likely both to concentrate their coursetaking in a specific program area and to earn advanced credits within their concentration. The NAVE speculated that the increasing lack of program concentration may be due to a number of factors, including students taking vocational courses for avocational reasons; students anticipating more complex job demands and moving toward an interdisciplinary type of training by taking coursework in several program areas; or students simply being less focused in their coursetaking. Ibid.

[25] The percentage of marketing concentrators completing second or higher level courses in marketing was not statistically higher than the percentage of trade and industry concentrators completing higher level courses in trade and industry.

[26] The percentage of occupational home economics concentrators completing second or higher level courses in their concentration was not statistically different from the percentage of health and technical and communications concentrators completing such courses in their respective concentrations.

Between 1982 and 1992, there was little increase in the percentage of students participating in occupational programs that were nontraditional for their sex (table 55).[27] The gender gap in trade and industry narrowed over the decade, although this narrowing was *not* due to more females completing courses in this program area. Rather, the gap narrowed because of a drop in participation for males. Moreover, the gap in participation for males and females remained about the same in agriculture, health, and occupational home economics. However, while females in 1982 were more than one and a half times as likely as males to participate in business, this gap narrowed significantly by 1992.

The patterns of vocational concentration for males and females were similar to those for coursetaking (tables 34 and 37). Males were more likely than females to be vocational concentrators and specialists, while females were more likely to be in the college preparatory track. Additionally, males were more likely to concentrate in agriculture, trade and industry, and technical and communications, while females were significantly more likely to concentrate in business, health, and occupational home economics.[28]

High school vocational course-taking patterns also differed based on race-ethnicity. Native Americans appeared to earn above average numbers of vocational and occupationally specific credits, and Asians below average numbers of these credits, although these differences were not statistically significant possibly due to the small sample sizes for these groups (table 4). Native American graduates also appeared both to concentrate and specialize in vocational education at above average rates, although these differences were once again not statistically significant (tables 34 and 37). However, Native Americans had higher than average rates of concentration in trade and industry programs, and lower than average rates in programs offering computer coursework, including business and technical and communications. White,[29] black,[30] and Hispanic graduates differed little from the overall pool of high school graduates in terms of the numbers of vocational and occupationally specific credits they earned and their rates of concentration and specialization. These groups also exhibited no consistent patterns of over- or underparticipation in specific occupational programs.

Postsecondary Level

The majority (57 percent) of nonbaccalaureate postsecondary students in 1989-90 were female (table 90). In fact, females represented the majority of the student populations at five of the six types of postsecondary institutions in the study, with the exception of public vocational-technical institutes, where males and females participated at similar rates. This enrollment pattern was reflected among students who reported majoring in vocational programs, with the majority (54 percent) of all vocational majors being female. Females were in the minority among vocational majors at public 4-year institutions only.

Most (74 percent) nonbaccalaureate postsecondary students in 1989-90 were white (table 90). However, the racial-ethnic composition of students varied markedly by institution type. While three-quarters or more of nonbaccalaureate students at public and private 4-year institutions, public 2- to 3-year institutions, and public vocational-technical institutes were white, more than 40 percent of pri-

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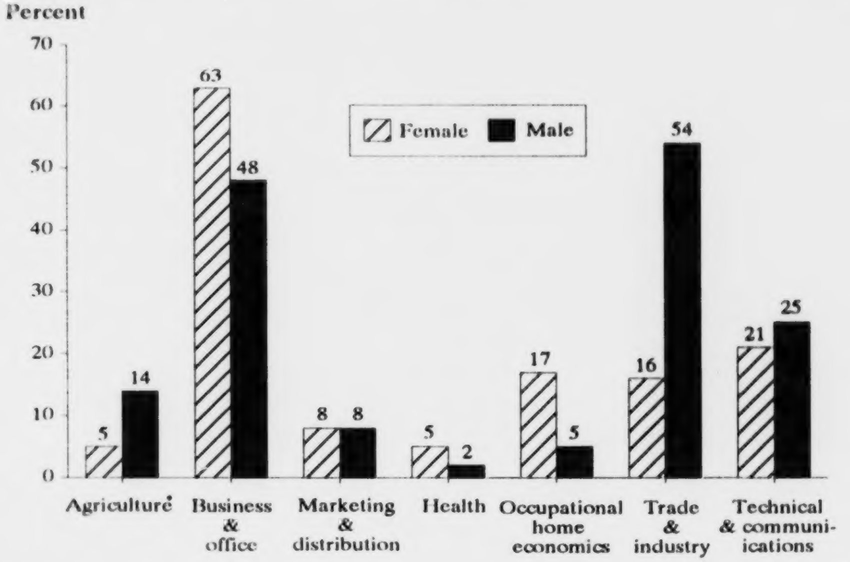
[27] For the purposes of this publication, an occupational program was identified as nontraditional if one gender group was two or more times as likely as the other to participate in the program in 1992.

[28] The NAVE found that the gender imbalance in occupational programs was greater among concentrators than among all graduates taking one or more courses in these areas. National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 1 (Washington, D.C.: 1994).

[29] In this publication, the term *white* refers to white, non-Hispanic persons.

[30] In this publication, the term *black* refers to black, non-Hispanic persons.

Figure 6—Percentage of 1992 public high school graduates completing one or more courses in occupational programs by program area, by sex



*Among 1992 public high school graduates, 5 percent of females and 14 percent of males completed at least one agricultural course.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

vate proprietary students were from a minority group.[31] These patterns persisted among students reporting vocational majors.

Black nonbaccalaureate students reported majoring in vocational education at above average rates, with almost two-thirds of this racial-ethnic group majoring in a vocational program area in comparison with about half of all students (table 59). Even after controlling for socioeconomic background, the NAVE found that black postsecondary students were more likely than all other groups to major in vocational areas.[32]

To what extent do students who are disadvantaged or have disabilities participate in vocational education?

Secondary Level

Public high school graduates in 1992 who were members of special populations were generally more likely than other graduates to participate in vocational education overall and in occupationally specific education. Graduates in lower socioeconomic quartiles; students with disabilities, lower grade point averages, and greater numbers of accumulated remedial credits; and both student parents and expecting students were more likely to participate than other students.[33] These special populations were more likely to complete at least one course in vocational education overall and in occupationally specific education (table 2). In addition, they generally earned greater numbers of vocational and occupationally specific credits than their counterparts who were not members of special populations (table 5 and figure 7).[34] However, English proficiency was not related to vocational participation. Limited-English proficient graduates participated at roughly equal rates as English proficient graduates in vocational education and occupationally specific education and earned roughly similar numbers of credits in these curricula.

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[31] The NAVE suggested that the overrepresentation of minorities in private proprietary schools might be due to the fact that these schools are concentrated in urban areas, while public subbaccalaureate institutions are mostly located outside cities. National Assessment of Vocational Education, *Final Report to Congress*, Volume II, chapter 2 (Washington, D.C.: 1994).

[32] Ibid.

Members of most special population groups were also more likely than other graduates to concentrate and specialize in vocational education (tables 35 and 38). Students in lower socioeconomic quartiles and students with disabilities, lower grade point averages, and greater numbers of accumulated credits in remedial coursework were more likely than other students to be both vocational concentrators and specialists. Limited-English proficient students were more likely than their English proficient counterparts to be vocational concentrators.[35] Given their high levels of vocational coursetaking, the propensity of students with disabilities and economically and academically disadvantaged students to concentrate their coursetaking in a single occupational program area—and to earn at least 2 credits in that program area above the introductory level—was a positive indication that these students were not simply taking scattered, lower level vocational courses.

Special population students were somewhat less likely than other graduates to concentrate in programs offering exposure to computer coursework (table 38). Students in lower socioeconomic quartiles and students with lower grade point averages and greater numbers of accumulated credits in remedial coursework were more likely than their economically and academically advantaged counterparts to concentrate in occupational home economics and trade and industry. Students with disabilities were more than twice as likely as nondisabled students to concentrate in trade and industry, and were less likely to concentrate in technical and communications. Additionally, students accumulating greater numbers of credits in remedial coursework were less likely than other students to concentrate in business. However, students in lower socioeconomic quartiles were more likely than their more affluent counterparts to concentrate in business.

Postsecondary Level

Economically disadvantaged students and unmarried students with dependents were more likely to report a vocational major than other nonbaccalaureate postsecondary students, but academically disadvantaged and disabled students were no more likely to do so (table 60). Specifically, during the 1989-90 academic year, nonbaccalaureate postsecondary students from families in lower socioeconomic quartiles were more likely to report majoring in a vocational program than students

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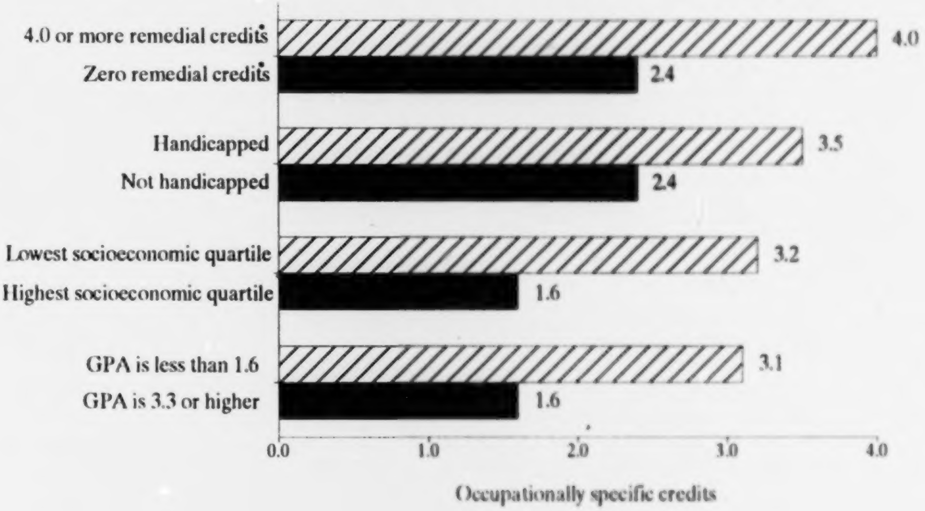
[33] The NAVE found that special populations, particularly academically disadvantaged and disabled students, made up a growing proportion of the vocational and occupational coursetaking population over the last decade. Several factors may have contributed to this trend. First, special populations decreased their vocational coursetaking less than other students during these years. As a result of this differential decline, "the overrepresentation of special population students in vocational education" increased. Second, the Perkins Act encouraged districts to maximize the participation of special populations in vocational education. Finally, the NAVE suggested that as vocational enrollments decline, "special population students are often easier to recruit, in part because regular programs are more willing to let them go. Comprehensive high schools, often reluctant to send students to area vocational schools because they may lose funds by doing so, are more willing to send more costly, hard-to-educate students to AVSs." Ibid.

[34] The differences between student parents and expecting students and their counterparts in the number of occupationally specific credits earned were not statistically significant.

[35] Limited-English proficient students also appeared more likely to be vocational specialists, but this difference was not statistically significant.

Figure 7—Average number of credits accumulated by 1992 public high school graduates in occupationally specific courses, by special population status



*1992 public high school graduates who earned 4.0 or more credits in remedial coursework accumulated on average 4.0 credits in occupationally specific courses. In contrast, graduates who earned no credits in remedial coursework accumulated on average 2.4 credits in occupationally specific courses.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

from affluent families. Additionally, unmarried students with dependents were more likely than all other groups to major in vocational education. In contrast, there was no consistent relationship between grade point average and majoring in vocational education, and disabled students were no more likely than their nondisabled peers to report a vocational major.

Incarcerated Persons

Section 421 of the 1990 Perkins Act called upon the Department of Education to report information on the participation of incarcerated persons in vocational education.[36] The National Adult Literacy Survey (NALS) provided the first national data on this group. NALS revealed that about one-third of federal and state prison inmates aged 16 or over in 1992 had received vocational training during their current period of incarceration (table 96). Whether inmates received vocational training varied by educational attainment. Inmates with a high school diploma or GED, or with some college education, were more likely than inmates with lower educational attainment to receive vocational training as their sole educational activity. However, inmates participated in a combination of vocational and nonvocational activities at similar rates regardless of their educational attainment.

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[36] The 1990 Perkins Act included individuals in correctional institutions among special populations groups. Public Law 101-392, Section 521(31).

How much academic preparation do vocational coursetakers receive?

Academic Coursetaking at the Secondary Level

In 1992, fewer than one in five public high school graduates met all of the academic standards established in *A Nation At Risk* for noncollege-bound graduates (table 40).[37] Graduates earning more credits in vocational education were less likely than graduates with fewer accumulated vocational credits to meet the standards in each subject area, except for computer science. Increased vocational coursework was associated with higher rates of compliance with the computer science standard. Additionally, graduates concentrating in the "high tech" fields of technical and communications and business were more likely than other vocational concentrators to meet all of the *A Nation At Risk* standards, and were just as likely as nonconcentrators to do so. These technical and business concentrators were also more likely than other vocational concentrators to specialize in the college preparatory curriculum, and technical concentrators were just as likely as graduates with no vocational concentration to do so (table 34).[38]

As the number of vocational credits that 1992 public high school graduates earned rose, the number of academic credits they earned decreased in all subject areas (table 41). However, the rate of tradeoff between academic and vocational credits varied across academic subject areas. For example, as graduates earned greater numbers of vocational credits, the decline in academic credits they earned was smaller for English and social studies and greater for foreign language than it was for other academic subjects (figure 8).[39]

Additionally, the rate of tradeoff between vocational and advanced academic credits varied across academic subject areas. As graduates earned greater numbers of vocational credits, the decline in advanced math credits they earned was greater than the decline in math credits in general. However, there was no significant difference between the rates of decline in advanced and general English and science courses.

Generally, as vocational coursetaking increased, students not only earned fewer credits in academic subject areas but also completed more of their academic coursework at lower levels. For example, as 1992 public high school graduates earned increasing numbers of credits in vocational education, they also earned more credits in remedial English, in math at levels lower than Algebra 1, and in survey science courses (tables 43, 45, and 47). As previously discussed, these patterns may reflect the fact that academically disadvantaged students were more likely than their advantaged counterparts to participate heavily in vocational education.

Efforts to Integrate Academic and Vocational Education

In an effort to improve the quality of both academic and vocational education, the 1990 Perkins Act encouraged secondary schools and postsecondary institutions to integrate these curricula.[40] By the spring of 1992, most schools and institutions

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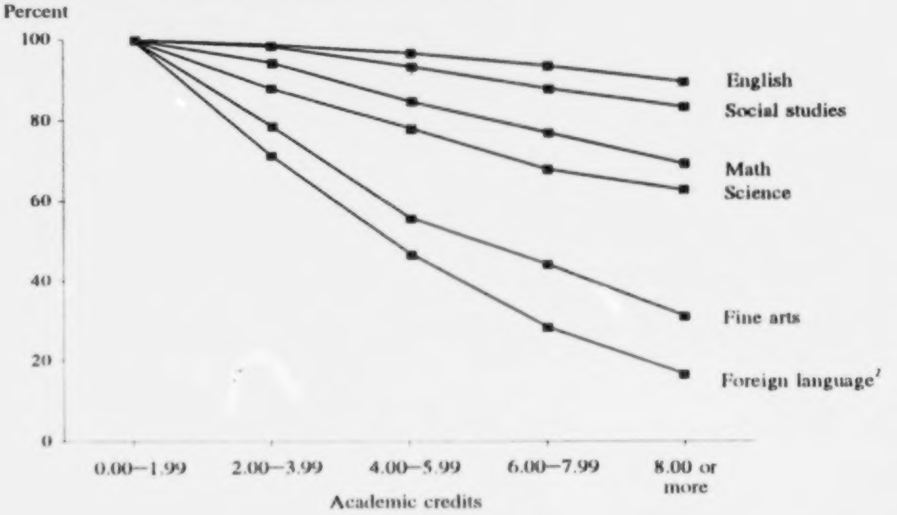
[37] New Basics standards for noncollege-bound high school graduates include 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, and a half year of computer science. National Commission on Excellence in Education, *A Nation At Risk: The Imperative for Educational Reform* (Cambridge, MA: USA Research, 1983).

[38] However, while technical and communications and business concentrators appeared at least twice as likely as marketing and distribution concentrators to specialize in the college prep curriculum, these differences were not statistically significant.

[39] However, the difference between foreign language and fine arts was not statistically significant.

[40] Although the 1990 Perkins Act did not define the term *integration of academic and vocational education*, some research has been done on the forms that such integration takes in schools. In *The Cunning Hand, the Cultured Mind*, Grubb et al. identified eight integration models that differ in approach and ambition: (1) incorporating more academic content in vocational courses; (2) combining vocational and academic teachers to enhance academic competencies in vocational programs; (3) making the academic curriculum more vocationally relevant; (4) curricular alignment by modifying both vocational and academic courses; (5) the senior project as a form of integration; (6) the academy model or schools-within-schools; (7) occupational high schools and magnet schools; and (8) occupational clusters, "career paths," and occupational majors. See W. Norton Grubb et al., *The Cunning Hand, the Cultured Mind: Models for Integrating Vocational and Academic Education*, Berkeley: National Center for Research in Vocational Education, July 1991.

Figure 8—Academic credits earned by public high school graduates as a percent of academic credits earned by graduates with low participation in vocational education,[1] by subject area and number of vocational credits accumulated: 1992



[1] Those graduates with fewer than 2.00 vocational credits are considered to have low participation in vocational education.
[2] 1992 public high school graduates accumulating 8.00 or more vocational credits earned 17 percent of the foreign language credits earned by graduates accumulating fewer than 2.00 vocational credits.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

reported some integration efforts (tables 97 and 100). However, most of these efforts involved enhancing existing vocational courses—rather than significantly restructuring the academic and vocational curricula—and did not appear to receive a substantial new allocation of resources, particularly in terms of allocating teachers' time. The following discussion provides examples of integration efforts undertaken at both the secondary and postsecondary levels.

Secondary level. At the secondary education level, more than 80 percent of public high schools offering vocational courses reported taking some action to integrate academic and vocational education by the 1991-92 school year (table 97). Vocational schools (including full-time and area or regional vocational high schools) were more likely than comprehensive high schools to have begun integration efforts. Among schools taking integration steps, vocational schools were also more likely to report efforts to integrate occupational programs.

The most frequently used method of integrating academic and vocational education was to incorporate employability or generic work skills, such as SCANS skills, into vocational courses (table 97).[41] Additionally, when academic and vocational teachers worked together, they were more likely to collaborate on developing academic materials for vocational courses, or applied materials for academic courses, than to collaborate on other efforts, such as team teaching or developing coordinated academic and vocational courses.[42] Finally, teachers had regularly scheduled time to work together on integration efforts at fewer than one-quarter of the secondary schools reporting such efforts.

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[41] The Secretary's Commission on Achieving Necessary Skills (SCANS) identified five competencies needed for employment, including (1) identifying, organizing, planning, and allocating resources; (2) working with others; (3) acquiring and using information; (4) understanding complex interrelationships; (5) working with a variety of technologies; and a three-part foundation of skills, including (1) basic skills; (2) thinking skills; and (3) personal qualities. The Secretary's Commission on Achieving Necessary Skills, *What Work Requires of Schools: A SCANS Report for America 2000* (Washington, D.C.: U.S. Department of Labor, June 1991).

Postsecondary level. At the postsecondary education level, almost all institutions (more than 96 percent) reported taking some action to integrate academic and vocational education by the 1991-92 school year (table 100). The most common integration efforts involved increasing the basic skills of vocational students (through supporting remedial or developmental education) and establishing general education competencies for these students.

The most common way in which faculty were involved in developing integrated curricula was reviewing general education requirements or developing academic materials to be incorporated into existing vocational courses. Faculty members had regularly scheduled time to work on integration efforts at about one-quarter of community colleges and vocational-technical institutes, and at about one in ten area or regional vocational schools serving postsecondary students.

What outcomes are associated with participation in vocational education?

Mathematics Achievement at the Secondary Level

A recent study of the relationship between coursetaking and achievement found that increased academic coursetaking was consistently associated with higher mathematics achievement, and increased vocational coursetaking with lower mathematics achievement, as measured by a National Assessment of Educational Progress (NAEP) achievement test.[43] Specifically, 1990 public high school graduates who scored in higher test quartiles on the NAEP mathematics assessment earned more academic and fewer vocational credits than did graduates in lower test quartiles (tables 107 and 108). Furthermore, as the number of vocational credits that graduates accumulated rose, their mathematics test scores tended to decrease (tables 105 and 106). The study indicated that these patterns persisted for males and females and graduates in all racial-ethnic groups.

The study cautioned against assuming a causal relationship between vocational coursetaking and lower mathematics achievement based on these findings. Because the study examined achievement at a single point in time, it was unable to isolate students' prior ability or achievement and, therefore, to control for preexisting differences—or "selection effects"—between students who completed greater and fewer numbers of vocational courses.[44] A related study found that while certain academic courses contributed to cognitive gain, vocational courses generally had a neutral effect on cognitive growth.[45] Thus, the lower mathematics achievement of graduates with greater numbers of accumulated vocational credits may reflect their completing fewer academic courses rather than more vocational courses. In addition, the tendency of heavy vocational coursetakers to complete a large proportion of their academic courses at lower levels, as noted earlier in this report, may also contribute to these low math test scores.

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[42] However, the percentages of educators in comprehensive high schools developing applied materials for academic courses and either team teaching or developing coordinated courses were not statistically different.

[43] The study reported similar findings for science and reading achievement. Alexander C. McCormick, John Tuma, and James Houser, *Vocational Course Taking and Achievement: An Analysis of High School Transcripts and 1990 NAEP Assessment Scores* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, May 1995).

[44] The study suggested that researchers and policymakers interested in the causal relationships between coursetaking and achievement should use longitudinal data to examine achievement *gains*, with careful controls for other explanatory factors. Ibid.

[45] K.A. Rasinski, *The Effect of High School Vocational Education on Academic Achievement Gain and High School Persistence: Evidence from NELS:88*, Draft Report (Chicago: National Opinion Research Center, 1994).

Postsecondary Employment and Earnings Outcomes

Among the general population, only about one in five adults aged 18–34 in the summer of 1990 had completed a postsecondary degree or certificate, and about one-fourth of those completers earned their highest postsecondary award in a vocational field (table 109). Vocational completers were more likely than persons never attending a postsecondary institution to be employed (table 110). However, while they appeared more likely than postsecondary noncompleters to be employed, this difference was not statistically significant. Vocational completers were employed at similar rates as nonvocational associate's degree or certificate holders, and were slightly less likely to be employed than bachelor's degree holders.[46]

During the summer of 1990, about one-half of all employed postsecondary vocational completers aged 18–34 worked in a field related to their training (table 111). Training-related employment appeared to make no difference in the constancy with which postsecondary vocational completers were employed between the summer of 1990 and the winter of 1992 (table 112).[47]

Although relatedness of employment to postsecondary vocational training did not appear to be related to employment stability, it was positively associated with earnings in the summer of 1990 (table 113).[48] For example, 39 percent of postsecondary vocational completers employed in a field related to their training earned more than $2,000 per month, while 30 percent of those employed in an unrelated field had this level of earnings. In contrast, 25 percent of vocational completers employed in an unrelated field earned less than $1,100 per month, while 17 percent of those employed in a related field earned this little.

What other school-to-work programs do schools and institutions offer?

In addition to offering classroom-based courses, secondary schools and postsecondary institutions often provide opportunities for work-based learning, such as cooperative education, work experience, and school-based enterprises. Cooperative education and work experience programs allow students to earn school credit in conjunction with paid or unpaid employment. Cooperative education programs place students in jobs related to their vocational field of study, and typically involve employers in developing a formal training plan and evaluating students. On the other hand, traditional work experience programs sometimes place students in vocationally unrelated jobs, and may not involve employers as extensively as cooperative education programs.[49] School-based enterprises are class-related activities that engage students in producing goods or services for sale or use to people other than the participating students themselves.

Secondary level. About one-half of public high schools in 1991–92 offered cooperative education programs (table 98). In contrast, fewer than one-third offered school-based enterprises and other work experience programs. Vocational schools were more likely than comprehensive high schools to offer each of these programs. Among vocational schools, area vocational schools were more likely than full-time vocational high schools to offer school-based enterprises and other work experience programs.

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[46] A pattern of increasing labor market returns to education was documented by Kane and Rouse. These researchers found that persons who attended 2- and 4-year colleges earned about 5 percent more than high school graduates for every year of postsecondary credits earned, regardless of whether they attained a postsecondary degree. See Thomas J. Kane and Cecilia Rouse, "Labor Market Returns to Two- and Four-Year Colleges: Is a Credit a Credit and Do Degrees Matter?", Working Paper #4268 (Cambridge, MA: National Bureau of Economic Research, January 1993).

[47] For example, 79 percent of vocational completers employed in a field related to training were employed throughout the time studied, while 77 percent of those employed in an unrelated field were consistently employed.

[48] The NAVE found that training-related employment also had a positive impact on the earnings of secondary vocational completers. NAVE, *Final Report to Congress*, Volume II, chapter 6 (Washington, D.C.: 1994).

[49] The School-to-Work Opportunities Act of 1994 encourages states to expand work-based learning opportunities for high school students and details methods for developing meaningful experiences. Public Law 103-239.

On average, 1992 public high school graduates accumulated 0.15 credits in cooperative education and work experience courses—equivalent to about one in seven graduates completing a year-long course (table 22). College preparatory graduates and graduates without a college preparatory or vocational specialization averaged negligible numbers of such credits (0.04 and 0.09, respectively). However, vocational specialists averaged about 1 credit in cooperative education and work experience, equivalent to a full-year course. High school students concentrating in marketing and distribution and in health completed more cooperative education and work experience coursework as part of their occupational programs than did other vocational concentrators.[50]

Postsecondary level. Three-quarters of community colleges reported offering cooperative education or work experience programs in 1991-92 (table 103). In contrast, about half of public postsecondary vocational-technical institutes and area vocational schools serving postsecondary students reported offering these programs. Fewer than one-sixth of all postsecondary institutions offered school-based enterprises, with area vocational schools that served postsecondary students being more likely than community colleges and vocational-technical institutes to offer these programs.

ADDITIONAL QUESTIONS FOR SECONDARY VOCATIONAL EDUCATION

How do vocational and nonvocational teachers differ from one another?

Differences between vocational and nonvocational teachers in 1990-91 had more to do with the types of schools in which vocational teachers taught, and the types of occupational programs that they taught, than with their being vocational or nonvocational teachers. Vocational teachers in comprehensive high schools were similar to nonvocational teachers, while vocational teachers working in vocational schools (including full-time vocational high schools and area vocational schools) were markedly different from other teachers. In part, these differences reflect that vocational teachers in vocational schools were more likely than their counterparts in comprehensive high schools to teach in the trade and industry, technical, and health areas.

Vocational teachers in comprehensive high schools were equally as likely as nonvocational teachers to be male (table 114). In contrast, vocational teachers in vocational schools were much more likely than their counterparts in comprehensive high schools to be male, with about two-thirds of vocational teachers in vocational schools being male in 1990-91.

Similarly, vocational teachers in comprehensive high schools were more similar to nonvocational teachers than to vocational teachers in vocational schools, in terms of the highest degree earned and the age at which they first began to teach (figure 9 and table 115). Vocational teachers in comprehensive high schools were only slightly more likely than nonvocational teachers to have earned less than a bachelor's degree, with the vast majority (more than 95 percent) of both groups earning at least a bachelor's degree. In contrast, 44 percent of vocational teachers in vocational schools held less than a bachelor's degree. Furthermore, vocational teachers in comprehensive high schools were only slightly older than nonvocational teachers when they first began to teach, with at least two-thirds of both groups having been 25 years or younger when they first taught. On the other hand, more than two-thirds of vocational teachers in vocational schools were over the age of 25 when they began to teach. These findings suggest that vocational teachers in vocational schools may have been more likely than their counterparts in com-

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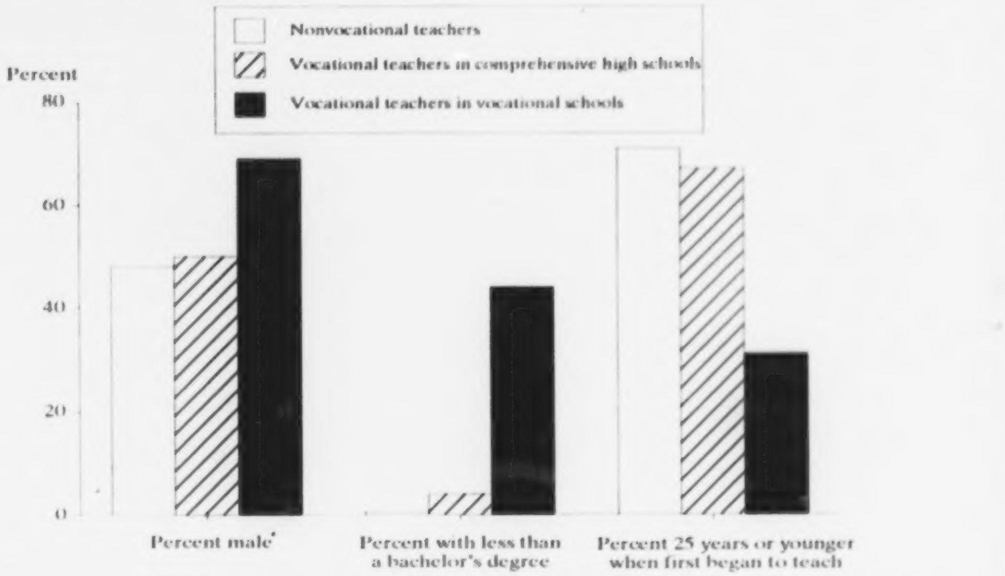
[50] However, credits earned by health concentrators were not statistically different from credits earned by business and occupational home economics concentrators.

Figure 9—Characteristics of public high school vocational and nonvocational teachers, by teacher and school type: 1990–91



*About 48 percent of all nonvocational teachers and 50 percent of vocational teachers who taught in comprehensive high schools were male, compared with 69 percent of vocational teachers who taught in vocational schools.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

prehensive high schools to have worked in their vocational fields before they entered teaching.

Vocational teachers in trade and industry, technical, and health areas were more likely to teach at vocational schools than were vocational teachers in other occupational areas (table 118).[51] For example, more than one-third of trade and industry and of technical teachers and more than one-quarter of health teachers taught at vocational schools, while 5 percent or fewer of agriculture, business and accounting, career education, home economics, and industrial arts teachers taught at these schools. Trade and industry as well as technical teachers were more likely than other vocational teachers to have earned less than a bachelor's degree and, along with health teachers, were older when they first began to teach (table 117).[52] These findings suggest that these teachers may have been more likely than other vocational teachers to enter the teaching profession after working for some years in industry.

How much do vocational teachers earn?

In 1990–91, vocational and nonvocational teachers earned similar salaries (an average of $31,595 for vocational teachers compared with $32,145 for nonvocational teachers) (table 121). Vocational teachers' salaries increased with number of years of teaching experience. Additionally, vocational teachers in suburban schools earned more than those in urban schools, who in turn earned more than vocational teachers in rural areas. While vocational teachers with a master's or higher degree earned more than their counterparts with less postsecondary education, there was no significant difference between the earnings of vocational teachers with a bachelor's degree and those with less than a bachelor's degree. This similarity in earnings may reflect the practice in some states of compensating vocational teachers for industry experience.[53]

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[51] The only exceptions were that technical and health teachers were not statistically more likely than teachers in the "other" vocational category to teach at vocational schools.

[52] Technical teachers were not more likely than health and "other" vocational teachers to have earned less than a bachelor's degree, and technical and health teachers were no less likely than teachers in the "other" and "mixed" categories to be age 25 or younger when they first began to teach.

How large are vocational classes and teaching loads?

Vocational classes tended to be smaller than nonvocational classes, and the average number of students for whom vocational teachers were responsible was smaller than for nonvocational teachers (tables 122 and 123). Specifically, vocational classes contained, on average, 17 students, while nonvocational classes contained 22 students. Furthermore, the size of vocational classes was fairly constant across school types, with vocational classes in comprehensive high schools containing only slightly more students than vocational classes in vocational schools. The average number of students vocational teachers instructed per week was lower than the number nonvocational teachers instructed (89 students compared with 113 students). However, vocational teachers in vocational schools instructed significantly fewer students per week than their counterparts in comprehensive high schools (75 students compared with 90 students). While vocational teachers in vocational schools had nearly as many students per class, they may have taught fewer classes than their counterparts in comprehensive high schools.[54]

ADDITIONAL QUESTIONS FOR POSTSECONDARY VOCATIONAL EDUCATION

What institutional sectors have the largest vocational education enrollments?

Public 2- to 3-year institutions (community colleges) were the largest providers of postsecondary vocational education in 1989-90, enrolling 60 percent of all nonbaccalaureate postsecondary students reporting a vocational major (table 61). Private proprietary institutions were the second largest vocational providers, serving about 22 percent of all nonbaccalaureate vocational students. The remaining 18 percent of vocational students were served by public 4-year; public vocational-technical; private, nonprofit 4-year; and private, nonprofit less-than-4-year institutions (figure 10). Four-year institutions together served about 11 percent of all postsecondary vocational students.

How do students reporting vocational majors differ from those reporting academic ones?

There were marked differences between students reporting vocational and academic majors (tables 89-93). Vocational majors were somewhat more likely than their academic counterparts to be male and to be from a racial-ethnic minority. Vocational majors were also older and were more likely to be economically independent from their parents. However, contrary to some widely held beliefs, vocational majors were also more likely than academic majors to be enrolled full time and to be working toward a formal degree or certificate rather than taking individual courses. Vocational majors were less economically well off than their academic peers and were more likely to be unmarried with dependents. They were also more likely to be receiving financial aid, perhaps because of a combination of factors, including their greater full-time attendance status, greater economic independence, and poorer economic background.

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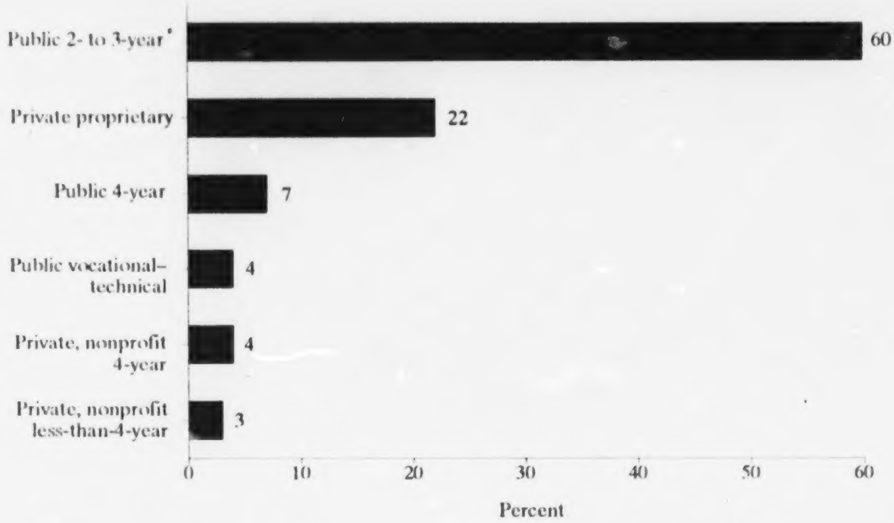
[53] See "The State of Certification," *Vocational Education Journal* 68 (6) (September 1993): 30-35.

[54] For example, area vocational schools typically block schedule their classes, offering two to four sessions per day. In contrast, comprehensive high schools schedule six or seven class periods per day, although some vocational classes may meet for two consecutive periods.

Figure 10—Percentage of nonbaccalaureate vocational majors attending different types of postsecondary institutions: 1989–90



*In 1989–90, 60 percent of all nonbaccalaureate postsecondary vocational majors attended public 2- to 3-year institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

How much financial aid do vocational students receive?

Among 1989–90 nonbaccalaureate postsecondary students, almost one-half of those who reported majoring in vocational education received some sort of financial aid (table 94). In contrast, one-third of students reporting academic majors and one-quarter of those reporting other majors received financial aid. Of those students who received financial aid, almost three-quarters (73 percent) of vocational majors received some sort of federal aid, compared with about two-thirds of academic majors (66 percent). State and institutional financial aid sources funded fewer students—22 percent and 25 percent of vocational majors, respectively.[55]

On average, aided students majoring in a vocational area received about $3,000 in federal aid in 1989–90, in comparison with about $1,200 in both state and institutional aid (table 95). Vocational majors were also more likely to receive federal grants than federal loans, with the largest federal grant source being Pell grants, and the largest loan source being Stafford loans (table 94). More than one-half of all vocational financial aid recipients received a Pell grant. However, the average Pell grant to vocational majors was smaller than the average Stafford loan ($1,400 compared with $2,300).

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[55] The state and institutional financial aid categories included both need-based and merit-based aid.

CONCLUSION

Vocational education involves a broad range of activities, including occupationally specific, general labor market, and consumer and homemaking coursework; school- and work-based experiences; and integrated academic and vocational curricula. While participation in the traditional high school vocational curriculum has declined somewhat over the 1982-1992 decade, efforts to reform vocational education in both high schools and postsecondary institutions have expanded in recent years.

The data presented in this publication are many and varied. They provide a fairly detailed picture of vocational education, particularly at the secondary level. Several broad themes recur and are summarized below.

Participation of Special Populations

At both the secondary and postsecondary levels, economically disadvantaged students were more likely than their advantaged counterparts to participate heavily in vocational education. Among public high school graduates, those from families in lower socioeconomic quartiles were more likely to complete three or more courses (to "concentrate") in a single occupational program area and to complete two or more advanced courses (to "specialize") in that program area (tables 35 and 38). Among nonbaccalaureate postsecondary students, those from families in lower socioeconomic quartiles were more likely than their higher socioeconomic counterparts to report majoring in a vocational program area (table 60).

Economic disadvantage aside, the participation patterns of special populations differed at the two educational levels. While academically disadvantaged students and students with disabilities were more likely than their counterparts to concentrate and specialize in vocational education in high school, they were not more likely to major in vocational education at the postsecondary level. Furthermore, unmarried postsecondary students with dependents were more likely to report majoring in vocational education, while high school graduates who were parents or were expecting while in high school were no more likely to concentrate or specialize in high school vocational programs than other graduates.

Academic Preparation of Vocational Coursetakers

A number of findings presented in this report describe the academic preparation of vocational coursetakers. Taken together, they paint a troublesome, but potentially improving, picture. To begin with, as public high school graduates earn more vocational credits, they tend to earn fewer academic ones (table 41). Given the limited number of class periods available during the school day and year, such a tradeoff may be necessary to enable students to participate in the vocational curriculum. Moreover, graduates who complete large numbers of vocational courses tend to give up more foreign language courses than other academic courses.[56] However, the remaining academic coursework of heavy vocational coursetakers includes fewer advanced academic courses and more remedial and survey-type coursework (tables 43, 45, and 47). The combination of completing fewer academic courses overall and fewer advanced and more lower level academic courses may contribute to the finding that students earning more vocational credits have lower NAEP academic achievement test scores (tables 105 and 106). Another contributing factor may be the tendency of high school students from special populations to participate in vocational education at relatively high rates. Against this background, however, high schools reported that efforts to infuse more academic materials into vocational courses were among their most common integration activities (tables 97 and 100).

Varied Profiles of Vocational Students and Teachers

A third theme emerging from this report is that no single description fits all vocational students or teachers, particularly at the secondary level. Instead, profiles vary by vocational program area. For example, business was the most common vocational concentration among college preparatory graduates (table 37), and business concentrators were more likely than all other vocational concentrators except technical and communications ones to meet all of the *A Nation At Risk* academic coursework standards (table 40). Additionally, female graduates were significantly more likely than male graduates to concentrate in business (table 37), and graduates accumulating greater numbers of remedial credits were significantly *less* likely to concentrate in this area (table 38). In contrast, male, Native American, and economically and academically disadvantaged graduates were more likely than their counterparts to concentrate in trade and industry (tables 37 and 38).

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[56] *A Nation At Risk* did not include foreign language among its coursework standards for students who were not college bound.

Vocational teachers also differed according to the vocational subjects they taught. For example, vocational teachers in trade and industry, technical, and health areas were more likely to teach at vocational schools than agriculture, business and accounting, career education, home economics, and industrial arts teachers (table 118). Furthermore, trade and industry teachers and technical teachers were more likely to have earned less than a bachelor's degree and, along with health teachers, were older when they first began to teach than other vocational teachers.

In conclusion, vocational education encompasses diverse objectives, activities, providers, and participants. No single description of the vocational education experience covers all situations. Experiences vary among education levels, types of schools and institutions, vocational program areas, and groups of students and teachers. This publication presents a wide array of data that shed light on these different experiences and help to understand the complex nature of the U.S. vocational education system in the early 1990s.

APPENDIX A

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Table 1—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected student characteristics

Student characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	96.50	62.37	9.74	16.70	45.36	87.07	
(s.e.)	(0.262)	(1.253)	(0.669)	(1.060)	(1.182)	(0.559)	11,707
Sex							
Male	96.45	59.30	17.02	15.32	35.77	89.15	
(s.e.)	(0.345)	(1.55)	(1.166)	(1.122)	(1.593)	(0.661)	5,760
Female	96.50	65.31	2.65	17.72	54.46	85.03	
(s.e.)	(0.363)	(1.514)	(0.436)	(1.367)	(1.410)	(0.811)	5,917
Race-ethnicity							
White, non-Hispanic	96.11	61.91	10.22	14.73	44.91	86.55	
(s.e.)	(0.325)	(1.482)	(0.798)	(1.138)	(1.405)	(0.684)	8,269
Black, non-Hispanic	98.09	61.69	8.95	19.35	50.83	88.55	
(s.e.)	(0.490)	(2.959)	(1.785)	(2.815)	(2.752)	(1.367)	1,023
Hispanic	97.11	69.14	8.01	23.00	43.01	89.59	
(s.e.)	(0.757)	(2.823)	(1.127)	(2.859)	(2.756)	(1.271)	1,365
Asian	96.30	57.03	7.00	25.91	41.51	85.30	
(s.e.)	(0.717)	(3.678)	(1.878)	(4.339)	(3.476)	(1.631)	855
Native American	98.34	60.29	7.85	20.06	44.43	91.47	
(s.e.)	(1.195)	(6.676)	(2.568)	(5.552)	(5.010)	(2.625)	118
Total vocational Carnegie units accumulated							
0.00–1.99	86.57	43.99	1.63	11.66	23.34	59.17	
(s.e.)	(0.987)	(2.230)	(0.360)	(1.856)	(1.844)	(1.809)	3,127
2.00–3.99	100.00	63.52	6.91	15.36	46.05	93.88	
(s.e.)	(0.000)	(1.816)	(0.945)	(1.412)	(1.903)	(0.584)	3,587
4.00–5.99	100.00	71.20	12.97	18.76	58.89	99.07	
(s.e.)	(0.000)	(1.649)	(1.502)	(1.586)	(1.822)	(0.256)	2,565
6.00–7.99	100.00	72.21	17.68	18.86	58.29	98.79	
(s.e.)	(0.000)	(2.010)	(1.586)	(1.592)	(2.350)	(0.682)	1,469
8.00 or more	100.00	76.75	24.45	28.31	55.63	99.30	
(s.e.)	(0.000)	(2.446)	(2.324)	(2.675)	(2.570)	(0.332)	959
Total specific labor market preparation Carnegie units accumulated							
Zero	72.91	60.52	5.32	12.90	37.22	0.00	
(s.e.)	(1.815)	(2.128)	(1.124)	(1.634)	(1.943)	(0.000)	1,598
0.01–0.99	100.00	60.96	5.13	19.32	44.73	100.00	
(s.e.)	(0.000)	(4.226)	(1.733)	(3.493)	(3.867)	(0.000)	1,131
1.00–1.99	100.00	61.69	6.36	16.59	45.49	100.00	
(s.e.)	(0.000)	(2.333)	(0.739)	(1.644)	(2.296)	(0.000)	2,639
2.00–2.99	100.00	63.94	10.78	16.84	50.78	100.00	
(s.e.)	(0.000)	(2.184)	(1.834)	(1.831)	(2.297)	(0.000)	1,998
3.00–3.99	100.00	66.23	12.73	15.53	52.30	100.00	
(s.e.)	(0.000)	(1.875)	(1.646)	(1.519)	(2.111)	(0.000)	1,475
4.00 or more	100.00	61.54	14.72	18.16	42.59	100.00	
(s.e.)	(0.000)	(1.815)	(1.159)	(1.547)	(1.703)	(0.000)	2,866

Table 1—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected student characteristics—Continued

Student characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Area of specialization[3]							
College prep	92.92	53.20	3.54	12.36	34.04	78.24	
(s.e.)	(0.649)	(2.036)	(0.406)	(1.655)	(1.982)	(1.121)	3,951
Vocational	100.00	64.00	18.23	17.87	38.59	100.00	
(s.e.)	(0.000)	(2.452)	(1.880)	(2.277)	(2.373)	(0.000)	902
Other	97.98	67.13	11.99	18.90	52.38	90.18	
(s.e.)	(0.228)	(1.303)	(0.937)	(1.202)	(1.406)	(0.649)	6,854
Area of vocational program concentration[4]							
None	95.37	62.54	8.10	16.57	45.78	82.91	
(s.e.)	(0.346)	(1.390)	(0.678)	(1.217)	(1.332)	(0.723)	8,865
Agriculture	100.00	63.65	20.31	11.24	41.12	100.00	
(s.e.)	(0.000)	(4.436)	(4.367)	(2.376)	(4.717)	(0.000)	306
Business & office	100.00	73.14	5.43	17.36	53.44	100.00	
(s.e.)	(0.000)	(2.599)	(1.354)	(2.494)	(2.708)	(0.000)	898
Marketing & distribution	100.00	59.49	12.40	10.25	54.88	100.00	
(s.e.)	(0.000)	(6.076)	(3.769)	(2.903)	(5.661)	(0.000)	159
Health	100.00	68.94	6.38	21.89	54.43	100.00	
(s.e.)	(0.000)	(7.747)	(3.975)	(5.510)	(6.233)	(0.000)	79
Occupational home economics	100.00	42.83	4.44	13.41	58.65	100.00	
(s.e.)	(0.000)	(5.569)	(1.765)	(3.100)	(5.949)	(0.000)	195
Trade & industry	100.00	56.76	24.29	19.92	33.84	100.00	
(s.e.)	(0.000)	(2.534)	(2.082)	(2.084)	(2.287)	(0.000)	1,142
Technical & communications	100.00	55.89	5.67	11.57	19.59	100.00	
(s.e.)	(0.000)	(8.642)	(3.193)	(4.706)	(6.142)	(0.000)	63

First row, first column reads: Of all 1992 public high school graduates, 96.50 percent completed one or more courses in some type of vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one type of vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 2—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected special populations characteristics

Special populations characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	96.50	62.37	9.74	16.70	45.36	87.07	
(s.e.)	(0.262)	(1.253)	(0.669)	(1.060)	(1.182)	(0.559)	11,707
Socioeconomic status							
Lowest quartile	98.66	69.58	12.90	19.92	53.09	92.43	
(s.e.)	(0.307)	(1.823)	(1.464)	(1.802)	(2.061)	(0.650)	2,274
Second quartile	98.57	70.23	12.18	17.70	50.25	90.14	
(s.e.)	(0.250)	(1.623)	(1.336)	(1.656)	(2.129)	(1.012)	2,846
Third quartile	97.49	59.82	8.63	16.30	43.90	87.91	
(s.e.)	(0.336)	(1.830)	(0.977)	(1.455)	(1.783)	(0.920)	3,011
Highest quartile	92.05	53.14	5.58	14.02	35.85	78.30	
(s.e.)	(0.804)	(2.347)	(0.797)	(2.007)	(2.219)	(1.360)	3,063
Special needs status[3]							
Special needs	98.36	66.23	13.48	20.98	50.59	91.71	
(s.e.)	(0.355)	(1.754)	(1.209)	(1.668)	(1.787)	(0.869)	2,688
No special needs	95.58	60.69	8.26	13.67	43.41	84.89	
(s.e.)	(0.362)	(1.502)	(0.717)	(1.105)	(1.388)	(0.710)	8,137
Limited English proficiency status							
Limited English proficient	94.98	63.63	9.25	22.17	48.09	89.77	
(s.e.)	(2.384)	(6.387)	(2.658)	(5.660)	(5.133)	(2.522)	225
English proficient	96.34	62.04	9.32	15.54	45.13	86.49	
(s.e.)	(0.286)	(1.311)	(0.671)	(1.076)	(1.236)	(0.609)	10,349
Handicap status[4]							
Handicapped	98.27	65.95	13.40	24.81	46.79	92.09	
(s.e.)	(0.552)	(3.421)	(2.026)	(2.864)	(3.167)	(1.169)	611
Not handicapped	96.20	61.41	9.07	14.72	45.34	86.31	
(s.e.)	(0.301)	(1.356)	(0.670)	(1.091)	(1.295)	(0.624)	9,923
Secondary GPA							
3.3 or higher	93.71	58.34	4.67	15.14	31.65	77.55	
(s.e.)	(0.689)	(2.117)	(0.729)	(2.198)	(1.773)	(1.568)	2,238
2.6 to less than 3.3	95.53	62.84	7.54	14.81	45.22	85.54	
(s.e.)	(0.468)	(1.701)	(0.909)	(1.264)	(1.832)	(0.878)	3,936
1.6 to less than 2.6	97.94	63.12	12.14	18.20	49.36	91.12	
(s.e.)	(0.321)	(1.685)	(0.957)	(1.291)	(1.599)	(0.705)	4,928
Less than 1.6	98.86	65.07	18.06	19.51	54.16	91.91	
(s.e.)	(0.488)	(3.230)	(3.076)	(2.551)	(3.373)	(1.693)	600

Table 2—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected special populations characteristics—Continued

Special populations characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Remedial Carnegie units accumulated[5]							
Zero	96.11	62.34	8.82	15.49	42.94	85.82	
(s.e.)	(0.309)	(1.349)	(0.684)	(1.077)	(1.259)	(0.643)	9,589
0.01-0.99	97.89	52.90	11.32	15.11	50.68	93.26	
(s.e.)	(0.970)	(6.504)	(3.740)	(2.976)	(6.431)	(1.992)	542
1.00-1.99	98.13	66.08	15.74	22.19	56.23	91.06	
(s.e.)	(0.442)	(2.843)	(2.360)	(3.040)	(2.780)	(1.643)	972
2.00-2.99	98.05	67.54	10.34	22.64	57.16	94.13	
(s.e.)	(1.070)	(4.705)	(2.362)	(5.155)	(5.766)	(1.692)	277
3.00-3.99	97.83	67.87	15.59	32.24	60.62	92.23	
(s.e.)	(1.278)	(5.586)	(3.969)	(5.536)	(5.832)	(2.439)	139
4.00 or more	98.32	66.20	11.39	29.97	56.02	89.79	
(s.e.)	(1.287)	(4.492)	(2.633)	(4.743)	(5.020)	(2.991)	188
Student parent status							
Parent	99.75	72.45	10.00	22.15	67.98	95.97	
(s.e.)	(0.251)	(5.379)	(2.171)	(4.284)	(7.207)	(1.349)	242
Nonparent	96.36	62.14	9.39	16.65	44.31	86.63	
(s.e.)	(0.275)	(1.304)	(0.685)	(1.147)	(1.234)	(0.589)	10,784
Expecting	99.47	64.79	10.77	19.50	61.25	94.11	
(s.e.)	(0.383)	(6.543)	(2.955)	(3.838)	(5.733)	(2.178)	137

First row, first column reads: Of all 1992 public high school graduates, 96.50 percent completed one or more courses in some type of vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[4] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[5] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one type of vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 3—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected school characteristics

School characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	96.50	62.37	9.74	16.70	45.36	87.07	
(s.e.)	(0.262)	(1.253)	(0.669)	(1.060)	(1.182)	(0.559)	11,707
School size							
1-500	98.99	74.33	20.03	14.88	56.90	93.55	
(s.e.)	(0.312)	(3.171)	(3.052)	(3.306)	(2.974)	(0.939)	1,571
501-1,000	97.05	63.07	10.07	14.57	46.06	87.27	
(s.e.)	(0.462)	(2.438)	(1.107)	(1.766)	(2.280)	(1.144)	2,844
1,001-1,500	95.19	55.25	6.09	14.16	42.10	84.47	
(s.e.)	(0.497)	(2.292)	(0.702)	(1.526)	(1.824)	(1.085)	2,919
1,501 or more	95.73	63.88	8.53	19.45	39.87	83.60	
(s.e.)	(0.586)	(2.257)	(1.241)	(2.691)	(2.146)	(1.082)	2,978
Urbanicity							
Urban	95.81	64.47	7.83	28.04	39.48	85.36	
(s.e.)	(0.553)	(2.448)	(1.021)	(2.890)	(2.213)	(1.085)	2,377
Suburban	96.09	57.86	7.73	14.26	43.33	86.30	
(s.e.)	(0.405)	(2.029)	(0.924)	(1.638)	(1.869)	(0.904)	4,972
Rural	97.34	67.04	13.61	11.83	51.21	89.02	
(s.e.)	(0.439)	(2.131)	(1.397)	(1.250)	(1.843)	(0.865)	4,268
Absentee rate							
0-5%	96.03	61.96	10.66	12.98	44.82	86.27	
(s.e.)	(0.474)	(2.231)	(1.430)	(1.598)	(1.911)	(1.038)	3,538
6-10%	96.28	62.32	9.59	15.24	44.39	85.80	
(s.e.)	(0.376)	(1.983)	(0.997)	(1.865)	(1.746)	(0.854)	4,379
11% or more	98.46	67.59	11.29	26.56	45.34	89.41	
(s.e.)	(0.409)	(4.583)	(2.240)	(4.999)	(3.306)	(1.642)	833
Percent of students receiving free or reduced-price lunch							
0-5%	95.45	58.46	7.85	17.04	40.43	84.30	
(s.e.)	(0.577)	(2.659)	(1.328)	(2.950)	(2.389)	(1.309)	2,568
6-10%	95.57	59.38	8.38	13.41	42.32	84.18	
(s.e.)	(0.456)	(3.411)	(1.320)	(2.125)	(2.384)	(1.396)	1,551
11-20%	96.15	60.50	10.20	13.86	49.82	87.19	
(s.e.)	(0.694)	(2.776)	(1.329)	(2.102)	(2.276)	(1.076)	2,146
21% or more	97.67	67.34	10.85	17.12	45.05	88.92	
(s.e.)	(0.377)	(2.091)	(1.313)	(1.764)	(1.892)	(0.849)	3,468
Percent of students taking remedial reading							
0%	95.99	68.13	11.45	12.58	47.78	86.29	
(s.e.)	(0.537)	(2.430)	(1.928)	(2.608)	(2.969)	(1.260)	1,713
1-5%	95.53	56.87	8.26	17.09	40.71	85.02	
(s.e.)	(0.515)	(2.425)	(1.063)	(2.261)	(1.974)	(1.142)	3,523
6-10%	97.55	64.12	9.77	13.87	49.98	87.58	
(s.e.)	(0.392)	(2.476)	(1.465)	(1.861)	(2.320)	(1.084)	2,461
11% or more	96.75	63.83	11.25	17.73	44.36	88.32	
(s.e.)	(0.599)	(2.778)	(1.677)	(2.223)	(2.255)	(1.083)	2,231

Table 3—Percentage of 1992 public high school graduates completing one or more courses in vocational education by type of vocational education, by selected school characteristics—Continued

School characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Percent of students in special education							
0%	83.35	58.48	2.95	33.48	31.76	73.65	
(s.e.)	(4.959)	(11.446)	(1.888)	(17.487)	(6.724)	(7.711)	95
1-5%	96.30	62.06	8.34	16.88	41.70	87.21	
(s.e.)	(0.530)	(2.590)	(1.423)	(2.014)	(2.257)	(1.192)	2,452
6-10%	96.84	62.59	11.89	13.22	44.90	87.38	
(s.e.)	(0.407)	(2.079)	(1.251)	(1.376)	(1.702)	(0.865)	4,018
11% or more	96.86	60.93	8.53	17.32	46.86	85.24	
(s.e.)	(0.497)	(3.011)	(1.427)	(3.385)	(2.518)	(1.408)	2,089

First row, first column reads: Of all 1992 public high school graduates, 96.50 percent completed one or more courses in some type of vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one type of vocational education.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 4—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected student characteristics

Student characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Unweighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	3.76	0.69	0.11	0.16	0.54	2.53	
(s.e.)	(0.058)	(0.020)	(0.009)	(0.012)	(0.018)	(0.046)	11,707
Sex							
Male	3.91	0.69	0.20	0.14	0.36	2.86	
(s.e.)	(0.073)	(0.026)	(0.017)	(0.013)	(0.024)	(0.066)	5,760
Female	3.57	0.68	0.03	0.16	0.70	2.19	
(s.e.)	(0.073)	(0.020)	(0.004)	(0.013)	(0.023)	(0.057)	5,917
Race-ethnicity							
White, non-Hispanic	3.73	0.67	0.12	0.14	0.53	2.52	
(s.e.)	(0.069)	(0.022)	(0.011)	(0.011)	(0.021)	(0.054)	8,269
Black, non-Hispanic	3.92	0.74	0.10	0.20	0.68	2.50	
(s.e.)	(0.110)	(0.052)	(0.029)	(0.034)	(0.056)	(0.095)	1,023
Hispanic	3.79	0.74	0.09	0.19	0.46	2.58	
(s.e.)	(0.129)	(0.045)	(0.013)	(0.026)	(0.033)	(0.113)	1,365
Asian	3.18	0.56	0.06	0.19	0.36	2.26	
(s.e.)	(0.218)	(0.048)	(0.013)	(0.039)	(0.036)	(0.205)	855
Native American	4.53	0.66	0.10	0.17	0.50	3.36	
(s.e.)	(0.348)	(0.089)	(0.038)	(0.049)	(0.077)	(0.351)	118
Total vocational Carnegie units accumulated							
0.00-1.99	0.93	0.29	0.01	0.06	0.15	0.49	
(s.e.)	(0.021)	(0.017)	(0.002)	(0.011)	(0.011)	(0.017)	3,127
2.00-3.99	2.71	0.58	0.06	0.11	0.46	1.68	
(s.e.)	(0.021)	(0.018)	(0.009)	(0.011)	(0.028)	(0.032)	3,587
4.00-5.99	4.68	0.80	0.13	0.17	0.77	3.11	
(s.e.)	(0.019)	(0.032)	(0.018)	(0.019)	(0.033)	(0.050)	2,565
6.00-7.99	6.63	1.03	0.22	0.24	0.92	4.67	
(s.e.)	(0.019)	(0.044)	(0.025)	(0.029)	(0.052)	(0.069)	1,469
8.00 or more	9.56	1.47	0.37	0.50	0.90	7.18	
(s.e.)	(0.105)	(0.096)	(0.056)	(0.073)	(0.059)	(0.134)	959
Total specific labor market preparation Carnegie units accumulated							
Zero	1.03	0.58	0.06	0.11	0.45	0.00	
(s.e.)	(0.053)	(0.032)	(0.019)	(0.016)	(0.041)	(0.000)	1,598
0.01-0.99	1.61	0.58	0.07	0.15	0.54	0.50	
(s.e.)	(0.100)	(0.056)	(0.032)	(0.032)	(0.070)	(0.006)	1,131
1.00-1.99	2.40	0.67	0.07	0.18	0.54	1.19	
(s.e.)	(0.053)	(0.040)	(0.009)	(0.033)	(0.032)	(0.010)	2,639
2.00-2.99	3.54	0.71	0.12	0.17	0.62	2.21	
(s.e.)	(0.050)	(0.033)	(0.019)	(0.022)	(0.039)	(0.012)	1,998
3.00-3.99	4.60	0.75	0.14	0.14	0.66	3.19	
(s.e.)	(0.052)	(0.033)	(0.018)	(0.017)	(0.036)	(0.009)	1,475
4.00 or more	7.01	0.76	0.17	0.17	0.48	5.78	
(s.e.)	(0.083)	(0.034)	(0.018)	(0.018)	(0.023)	(0.068)	2,866

Table 4—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected student characteristics—Continued

Student characteristics	Any vocational education	General labor market preparation: Total[1]	General labor market preparation: Industrial arts	General labor market preparation: Career education	Consumer & homemaking education	Specific labor market preparation	Unweighted Ns
Area of specialization[3]							
College prep	2.24	0.44	0.03	0.07	0.32	1.48	
(s.e.)	(0.063)	(0.018)	(0.004)	(0.009)	(0.020)	(0.049)	3,951
Vocational	8.02	0.81	0.22	0.19	0.39	6.82	
(s.e.)	(0.147)	(0.053)	(0.026)	(0.040)	(0.029)	(0.123)	902
Other	4.04	0.81	0.14	0.20	0.68	2.55	
(s.e.)	(0.059)	(0.025)	(0.013)	(0.017)	(0.025)	(0.048)	6,854
Area of vocational program concentration[4]							
None	2.79	0.67	0.09	0.16	0.56	1.57	
(s.e.)	(0.046)	(0.021)	(0.009)	(0.014)	(0.021)	(0.029)	8,865
Agriculture	7.36	0.86	0.31	0.14	0.49	6.01	
(s.e.)	(0.240)	(0.129)	(0.102)	(0.040)	(0.072)	(0.197)	306
Business & office	6.36	0.86	0.05	0.15	0.65	4.86	
(s.e.)	(0.107)	(0.047)	(0.016)	(0.024)	(0.041)	(0.088)	898
Marketing & distribution	6.04	0.57	0.12	0.10	0.55	4.92	
(s.e.)	(0.203)	(0.069)	(0.034)	(0.032)	(0.061)	(0.204)	159
Health	7.05	0.66	0.04	0.16	0.84	5.55	
(s.e.)	(0.340)	(0.091)	(0.027)	(0.048)	(0.120)	(0.359)	79
Occupational home economics	7.23	0.47	0.04	0.13	0.80	5.96	
(s.e.)	(0.280)	(0.069)	(0.016)	(0.032)	(0.097)	(0.218)	195
Trade & industry	6.98	0.74	0.28	0.20	0.30	5.94	
(s.e.)	(0.139)	(0.048)	(0.026)	(0.033)	(0.026)	(0.126)	1,142
Technical & communications	6.05	0.55	0.14	0.06	0.21	5.29	
(s.e.)	(0.270)	(0.125)	(0.102)	(0.025)	(0.082)	(0.198)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 3.76 Carnegie units in vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the "any vocational education" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 5—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected special populations characteristics

Special populations characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	3.76	0.69	0.11	0.16	0.54	2.53	
(s.e.)	(0.058)	(0.020)	(0.009)	(0.012)	(0.018)	(0.046)	11,707
Socioeconomic status							
Lowest quartile	4.74	0.86	0.16	0.19	0.72	3.17	
(s.e.)	(0.115)	(0.033)	(0.020)	(0.018)	(0.033)	(0.103)	2,274
Second quartile	4.39	0.82	0.14	0.19	0.65	2.92	
(s.e.)	(0.107)	(0.031)	(0.016)	(0.025)	(0.037)	(0.088)	2,846
Third quartile	3.54	0.63	0.10	0.12	0.47	2.44	
(s.e.)	(0.072)	(0.030)	(0.015)	(0.013)	(0.023)	(0.064)	3,011
Highest quartile	2.41	0.47	0.06	0.10	0.36	1.59	
(s.e.)	(0.071)	(0.023)	(0.008)	(0.016)	(0.031)	(0.055)	3,063
Special needs status[3]							
Special needs	4.53	0.81	0.16	0.22	0.64	3.08	
(s.e.)	(0.084)	(0.033)	(0.018)	(0.020)	(0.031)	(0.078)	2,688
No special needs	3.44	0.63	0.10	0.11	0.51	2.30	
(s.e.)	(0.065)	(0.020)	(0.009)	(0.009)	(0.021)	(0.050)	8,137
Limited English proficiency status							
Limited English proficient	4.22	0.73	0.13	0.16	0.55	2.94	
(s.e.)	(0.283)	(0.097)	(0.052)	(0.034)	(0.074)	(0.235)	225
English proficient	3.69	0.66	0.11	0.13	0.54	2.48	
(s.e.)	(0.059)	(0.019)	(0.009)	(0.009)	(0.019)	(0.047)	10,349
Handicap status[4]							
Handicapped	4.95	0.86	0.18	0.28	0.60	3.49	
(s.e.)	(0.195)	(0.062)	(0.034)	(0.034)	(0.050)	(0.170)	611
Not handicapped	3.61	0.65	0.10	0.12	0.54	2.42	
(s.e.)	(0.060)	(0.019)	(0.009)	(0.009)	(0.020)	(0.047)	9,923
Secondary GPA							
3.3 or higher	2.44	0.52	0.05	0.11	0.32	1.60	
(s.e.)	(0.073)	(0.026)	(0.009)	(0.020)	(0.022)	(0.058)	2,238
2.6 to less than 3.3	3.49	0.67	0.09	0.14	0.51	2.32	
(s.e.)	(0.085)	(0.026)	(0.012)	(0.017)	(0.029)	(0.073)	3,936
1.6 to less than 2.6	4.32	0.74	0.14	0.17	0.62	2.96	
(s.e.)	(0.085)	(0.027)	(0.012)	(0.015)	(0.024)	(0.068)	4,928
Less than 1.6	4.74	0.91	0.22	0.27	0.69	3.14	
(s.e.)	(0.140)	(0.081)	(0.053)	(0.047)	(0.074)	(0.156)	600

Table 5—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected special populations characteristics—Continued

Special populations characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Unweighted Ns
		Total[1]	Industrial arts	Career education			
Remedial Carnegie units accumulated[5]							
Zero	3.54	0.65	0.10	0.13	0.50	2.38	
(s.e.)	(0.058)	(0.019)	(0.009)	(0.010)	(0.020)	(0.047)	9,589
0.01-0.99	3.78	0.65	0.11	0.22	0.55	2.58	
(s.e.)	(0.350)	(0.120)	(0.037)	(0.106)	(0.071)	(0.248)	542
1.00-1.99	4.82	0.89	0.21	0.23	0.72	3.21	
(s.e.)	(0.161)	(0.070)	(0.048)	(0.037)	(0.044)	(0.139)	972
2.00-2.99	5.04	0.91	0.11	0.37	0.70	3.43	
(s.e.)	(0.217)	(0.121)	(0.028)	(0.101)	(0.126)	(0.220)	277
3.00-3.99	5.27	0.96	0.18	0.42	0.80	3.51	
(s.e.)	(0.308)	(0.113)	(0.046)	(0.093)	(0.094)	(0.285)	139
4.00 or more	5.85	0.95	0.20	0.43	0.86	4.04	
(s.e.)	(0.296)	(0.126)	(0.055)	(0.112)	(0.132)	(0.281)	188
Student parent status							
Parent	4.80	0.90	0.13	0.25	1.08	2.82	
(s.e.)	(0.437)	(0.074)	(0.029)	(0.053)	(0.134)	(0.375)	242
Nonparent	3.65	0.67	0.11	0.14	0.52	2.46	
(s.e.)	(0.059)	(0.019)	(0.010)	(0.010)	(0.018)	(0.047)	10,784
Expecting	4.89	0.90	0.13	0.29	0.88	3.11	
(s.e.)	(0.308)	(0.123)	(0.036)	(0.074)	(0.097)	(0.301)	137

First row, first column reads: 1992 public high school graduates earned on average a total of 3.76 Carnegie units in vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[4] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[5] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to the "any vocational education" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 6—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected school characteristics

School characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Unweighted Ns
		Total[1]	Industrial arts	Career education			
Total[2]	3.76	0.69	0.11	0.16	0.54	2.53	
(s.e.)	(0.058)	(0.020)	(0.009)	(0.012)	(0.018)	(0.046)	11,707
School size							
1-500	4.79	0.92	0.27	0.12	0.78	3.10	
(s.e.)	(0.167)	(0.066)	(0.048)	(0.029)	(0.051)	(0.134)	1,571
501-1,000	4.03	0.72	0.11	0.14	0.59	2.72	
(s.e.)	(0.107)	(0.037)	(0.017)	(0.021)	(0.035)	(0.089)	2,844
1,001-1,500	3.49	0.60	0.06	0.14	0.47	2.43	
(s.e.)	(0.098)	(0.034)	(0.009)	(0.018)	(0.025)	(0.085)	2,919
1,501 or more	3.16	0.60	0.08	0.16	0.39	2.16	
(s.e.)	(0.079)	(0.030)	(0.011)	(0.021)	(0.023)	(0.064)	2,978
Urbanicity							
Urban	3.47	0.69	0.08	0.26	0.43	2.36	
(s.e.)	(0.113)	(0.038)	(0.010)	(0.031)	(0.037)	(0.092)	2,377
Suburban	3.34	0.58	0.08	0.12	0.47	2.29	
(s.e.)	(0.079)	(0.026)	(0.011)	(0.013)	(0.026)	(0.066)	4,972
Rural	4.43	0.81	0.17	0.12	0.69	2.93	
(s.e.)	(0.090)	(0.036)	(0.022)	(0.014)	(0.029)	(0.074)	4,268
Absentee rate							
0-5%	3.70	0.64	0.12	0.10	0.54	2.51	
(s.e.)	(0.100)	(0.032)	(0.018)	(0.012)	(0.029)	(0.077)	3,538
6-10%	3.73	0.68	0.11	0.14	0.54	2.51	
(s.e.)	(0.086)	(0.030)	(0.014)	(0.016)	(0.026)	(0.071)	4,379
11% or more	4.08	0.78	0.10	0.28	0.48	2.82	
(s.e.)	(0.204)	(0.074)	(0.020)	(0.068)	(0.047)	(0.179)	833
Percent of students receiving free or reduced-price lunch							
0-5%	3.17	0.57	0.09	0.14	0.43	2.17	
(s.e.)	(0.100)	(0.036)	(0.019)	(0.022)	(0.028)	(0.085)	2,568
6-10%	3.60	0.61	0.09	0.12	0.53	2.46	
(s.e.)	(0.129)	(0.046)	(0.015)	(0.015)	(0.048)	(0.105)	1,551
11-20%	3.89	0.65	0.10	0.13	0.60	2.63	
(s.e.)	(0.105)	(0.037)	(0.014)	(0.022)	(0.038)	(0.087)	2,146
21% or more	4.19	0.80	0.13	0.16	0.57	2.82	
(s.e.)	(0.105)	(0.039)	(0.022)	(0.022)	(0.029)	(0.085)	3,468
Percent of students taking remedial reading							
0%	3.78	0.76	0.12	0.11	0.58	2.44	
(s.e.)	(0.134)	(0.038)	(0.022)	(0.025)	(0.039)	(0.113)	1,713
1-5%	3.40	0.61	0.11	0.14	0.46	2.33	
(s.e.)	(0.092)	(0.036)	(0.019)	(0.016)	(0.028)	(0.070)	3,523
6-10%	3.98	0.64	0.09	0.12	0.60	2.74	
(s.e.)	(0.111)	(0.035)	(0.011)	(0.018)	(0.035)	(0.092)	2,461
11% or more	4.07	0.77	0.13	0.19	0.53	2.77	
(s.e.)	(0.132)	(0.050)	(0.027)	(0.030)	(0.034)	(0.108)	2,231

Table 6—Average number of Carnegie units accumulated by 1992 public high school graduates in vocational education by type of vocational education, by selected school characteristics—Continued

School characteristics	Any vocational education	General labor market preparation			Consumer & homemaking education	Specific labor market preparation	Un-weighted Ns
		Total[1]	Industrial arts	Career education			
Percent of students in special education							
0%	2.66	0.53	0.03	0.29	0.36	1.77	
(s.e.)	(0.445)	(0.147)	(0.015)	(0.183)	(0.086)	(0.514)	95
1-5%	3.69	0.67	0.08	0.15	0.47	2.55	
(s.e.)	(0.129)	(0.040)	(0.015)	(0.023)	(0.030)	(0.105)	2,452
6-10%	3.83	0.69	0.13	0.13	0.56	2.58	
(s.e.)	(0.085)	(0.032)	(0.016)	(0.014)	(0.030)	(0.067)	4,018
11% or more	3.75	0.63	0.11	0.13	0.56	2.55	
(s.e.)	(0.117)	(0.041)	(0.024)	(0.022)	(0.033)	(0.105)	2,089

First row, first column reads: 1992 public high school graduates earned on average a total of 3.76 Carnegie units in vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the "any vocational education" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 7—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected student characteristics

Student characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Total[1]	23.75	17.30	3.76	2.69	
(s.e.)	(0.086)	(0.089)	(0.058)	(0.035)	11,707
Sex					
Male	23.57	16.78	3.91	2.87	
(s.e.)	(0.097)	(0.112)	(0.073)	(0.045)	5,760
Female	23.94	17.86	3.57	2.51	
(s.e.)	(0.096)	(0.099)	(0.073)	(0.038)	5,917
Race–ethnicity					
White, non-Hispanic	23.82	17.47	3.73	2.63	
(s.e.)	(0.099)	(0.099)	(0.069)	(0.039)	8,269
Black, non-Hispanic	23.21	16.63	3.92	2.66	
(s.e.)	(0.252)	(0.321)	(0.110)	(0.103)	1,023
Hispanic	23.62	16.81	3.79	3.03	
(s.e.)	(0.124)	(0.159)	(0.129)	(0.072)	1,365
Asian	24.46	18.36	3.18	2.93	
(s.e.)	(0.209)	(0.280)	(0.218)	(0.078)	855
Native American	23.38	15.89	4.53	2.97	
(s.e.)	(0.333)	(0.333)	(0.348)	(0.219)	118
Total vocational Carnegie units accumulated					
0.00–1.99	23.83	20.16	0.93	2.74	
(s.e.)	(0.106)	(0.097)	(0.021)	(0.066)	3,127
2.00–3.99	23.73	18.20	2.71	2.82	
(s.e.)	(0.120)	(0.124)	(0.021)	(0.048)	3,587
4.00–5.99	23.48	16.08	4.68	2.72	
(s.e.)	(0.127)	(0.128)	(0.019)	(0.058)	2,565
6.00–7.99	23.43	14.32	6.63	2.48	
(s.e.)	(0.107)	(0.102)	(0.019)	(0.052)	1,469
8.00 or more	24.73	12.90	9.56	2.27	
(s.e.)	(0.188)	(0.138)	(0.105)	(0.065)	959
Total specific labor market preparation Carnegie units accumulated					
Zero	23.81	20.00	1.03	2.78	
(s.e.)	(0.127)	(0.121)	(0.053)	(0.073)	1,598
0.01–0.99	23.70	19.36	1.61	2.73	
(s.e.)	(0.188)	(0.189)	(0.100)	(0.111)	1,131
1.00–1.99	23.78	18.55	2.40	2.82	
(s.e.)	(0.138)	(0.151)	(0.053)	(0.059)	2,639
2.00–2.99	23.51	17.22	3.54	2.76	
(s.e.)	(0.125)	(0.154)	(0.050)	(0.075)	1,998
3.00–3.99	23.65	16.39	4.60	2.66	
(s.e.)	(0.131)	(0.131)	(0.052)	(0.053)	1,475
4.00 or more	23.93	14.44	7.01	2.47	
(s.e.)	(0.114)	(0.097)	(0.083)	(0.043)	2,866

Table 7—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected student characteristics—Continued

Student characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Area of specialization[2]					
College prep	25.02	20.24	2.24	2.54	
(s.e.)	(0.141)	(0.109)	(0.063)	(0.056)	3,951
Vocational	23.98	13.66	8.02	2.30	
(s.e.)	(0.172)	(0.137)	(0.147)	(0.062)	902
Other	23.03	16.17	4.04	2.82	
(s.e.)	(0.077)	(0.083)	(0.059)	(0.040)	6,854
Area of vocational program concentration[3]					
None	23.73	18.19	2.79	2.75	
(s.e.)	(0.087)	(0.094)	(0.046)	(0.039)	8,865
Agriculture	23.81	13.67	7.36	2.78	
(s.e.)	(0.246)	(0.218)	(0.240)	(0.151)	306
Business & office	24.33	15.63	6.36	2.34	
(s.e.)	(0.180)	(0.157)	(0.107)	(0.060)	898
Marketing & distribution	23.61	15.24	6.04	2.32	
(s.e.)	(0.580)	(0.404)	(0.203)	(0.126)	159
Health	23.41	14.20	7.05	2.16	
(s.e.)	(0.319)	(0.361)	(0.340)	(0.203)	79
Occupational home economics	23.34	13.58	7.23	2.52	
(s.e.)	(0.343)	(0.250)	(0.280)	(0.168)	195
Trade & industry	23.49	13.90	6.98	2.61	
(s.e.)	(0.175)	(0.125)	(0.139)	(0.055)	1,142
Technical & communications	25.32	17.01	6.05	2.26	
(s.e.)	(0.501)	(0.564)	(0.270)	(0.123)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 23.75 Carnegie units in high school.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 8—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected special populations characteristics

Special populations characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Total[1]	23.75	17.30	3.76	2.69	
(s.e.)	(0.086)	(0.089)	(0.058)	(0.035)	11,707
Socioeconomic status					
Lowest quartile	23.32	15.89	4.74	2.69	
(s.e.)	(0.125)	(0.107)	(0.115)	(0.053)	2,274
Second quartile	23.65	14.53	4.39	2.73	
(s.e.)	(0.117)	(0.128)	(0.107)	(0.066)	2,846
Third quartile	23.90	17.68	3.54	2.68	
(s.e.)	(0.123)	(0.155)	(0.072)	(0.045)	3,011
Highest quartile	24.23	19.16	2.41	2.66	
(s.e.)	(0.121)	(0.113)	(0.071)	(0.066)	3,063
Special needs status[2]					
Special needs	22.41	15.12	4.53	2.77	
(s.e.)	(0.094)	(0.102)	(0.084)	(0.057)	2,688
No special needs	24.24	18.17	3.44	2.63	
(s.e.)	(0.101)	(0.102)	(0.065)	(0.039)	8,137
Limited English proficiency status					
Limited English proficient	23.73	16.34	4.22	3.17	
(s.e.)	(0.234)	(0.268)	(0.283)	(0.123)	225
English proficient	23.83	17.49	3.69	2.66	
(s.e.)	(0.092)	(0.093)	(0.059)	(0.036)	10,349
Handicap status[3]					
Handicapped	23.25	15.41	4.95	2.90	
(s.e.)	(0.167)	(0.207)	(0.195)	(0.079)	611
Not handicapped	23.86	17.60	3.61	2.66	
(s.e.)	(0.094)	(0.095)	(0.060)	(0.037)	9,923
Secondary GPA					
3.3 or higher	25.19	20.10	2.44	2.65	
(s.e.)	(0.119)	(0.144)	(0.073)	(0.058)	2,238
2.6 to less than 3.3	24.36	18.21	3.49	2.66	
(s.e.)	(0.118)	(0.122)	(0.085)	(0.043)	3,936
1.6 to less than 2.6	23.10	16.02	4.32	2.76	
(s.e.)	(0.083)	(0.097)	(0.085)	(0.049)	4,928
Less than 1.6	21.25	14.05	4.74	2.46	
(s.e.)	(0.168)	(0.173)	(0.140)	(0.075)	600
Remedial Carnegie units accumulated[4]					
Zero	23.90	17.74	3.54	2.63	
(s.e.)	(0.092)	(0.093)	(0.058)	(0.034)	9,589
0.01–0.99	23.10	16.38	3.78	2.94	
(s.e.)	(0.233)	(0.379)	(0.350)	(0.213)	542
1.00–1.99	23.18	15.64	4.82	2.73	
(s.e.)	(0.199)	(0.246)	(0.161)	(0.076)	972
2.00–2.99	23.09	14.73	5.04	3.31	
(s.e.)	(0.175)	(0.361)	(0.217)	(0.339)	277
3.00–3.99	23.11	14.43	5.27	3.41	
(s.e.)	(0.300)	(0.327)	(0.308)	(0.181)	139
4.00 or more	23.16	14.47	5.85	2.84	
(s.e.)	(0.228)	(0.300)	(0.296)	(0.152)	188

Table 8—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected special populations characteristics—Continued

Special populations characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Student parent status					
Parent	22.77	15.31	4.80	2.66	
(s.e.)	(0.284)	(0.261)	(0.437)	(0.127)	242
Nonparent	23.85	17.51	3.65	2.69	
(s.e.)	(0.088)	(0.089)	(0.059)	(0.037)	10,784
Expecting	22.89	15.17	4.89	2.82	
(s.e.)	(0.230)	(0.315)	(0.308)	(0.149)	137

First row, first column reads: 1992 public high school graduates earned on average a total of 23.75 Carnegie units in high school.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 9—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected school characteristics

School characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Total*	23.75	17.30	3.76	2.69	
(s.e.)	(0.086)	(0.089)	(0.058)	(0.035)	11,707
School size					
1-500	24.20	16.84	4.79	2.56	
(s.e.)	(0.257)	(0.262)	(0.167)	(0.10)	1,571
501-1,000	23.89	17.31	4.03	2.55	
(s.e.)	(0.210)	(0.235)	(0.107)	(0.067)	2,844
1,001-1,500	23.61	17.52	3.49	2.59	
(s.e.)	(0.115)	(0.128)	(0.098)	(0.065)	2,919
1,501 or more	23.69	17.65	3.16	2.88	
(s.e.)	(0.150)	(0.149)	(0.079)	(0.061)	2,978
Urbanicity					
Urban	23.72	17.49	3.47	2.76	
(s.e.)	(0.178)	(0.205)	(0.113)	(0.081)	2,377
Suburban	23.72	17.61	3.34	2.77	
(s.e.)	(0.110)	(0.120)	(0.079)	(0.060)	4,972
Rural	23.86	16.90	4.43	2.52	
(s.e.)	(0.185)	(0.175)	(0.090)	(0.050)	4,268
Absentee rate					
0-5%	23.46	17.11	3.70	2.65	
(s.e.)	(0.141)	(0.140)	(0.100)	(0.068)	3,538
6-10%	24.25	17.90	3.73	2.61	
(s.e.)	(0.145)	(0.153)	(0.086)	(0.054)	4,379
11% or more	23.82	17.09	4.08	2.65	
(s.e.)	(0.238)	(0.334)	(0.204)	(0.121)	833
Percent of students receiving free or reduced-price lunch					
0-5%	23.91	17.94	3.17	2.80	
(s.e.)	(0.175)	(0.192)	(0.100)	(0.077)	2,568
6-10%	23.79	17.75	3.60	2.44	
(s.e.)	(0.196)	(0.202)	(0.129)	(0.091)	1,551
11-20%	23.77	17.22	3.89	2.66	
(s.e.)	(0.156)	(0.155)	(0.105)	(0.076)	2,146
21% or more	23.80	17.00	4.19	2.62	
(s.e.)	(0.174)	(0.184)	(0.105)	(0.057)	3,468
Percent of students taking remedial reading					
0%	23.39	17.06	3.78	2.55	
(s.e.)	(0.202)	(0.263)	(0.134)	(0.063)	1,713
1-5%	24.03	17.86	3.40	2.77	
(s.e.)	(0.141)	(0.142)	(0.092)	(0.070)	3,523
6-10%	23.89	17.35	3.98	2.56	
(s.e.)	(0.136)	(0.145)	(0.111)	(0.069)	2,461
11% or more	23.65	16.96	4.07	2.61	
(s.e.)	(0.241)	(0.252)	(0.132)	(0.072)	2,231

Table 9—Average number of Carnegie units accumulated by 1992 public high school graduates by type of curriculum, by selected school characteristics—Continued

School characteristics	Total	Academic	Vocational	Personal use	Unweighted Ns
Percent of students in special education					
0%	23.17	18.73	2.66	1.78	
(s.e.)	(0.565)	(0.700)	(0.445)	(0.240)	95
1-5%	23.78	17.51	3.69	2.58	
(s.e.)	(0.176)	(0.187)	(0.129)	(0.068)	2,452
6-10%	23.93	17.45	3.83	2.65	
(s.e.)	(0.158)	(0.171)	(0.085)	(0.059)	4,018
11% or more	24.01	17.57	3.75	2.69	
(s.e.)	(0.199)	(0.190)	(0.117)	(0.088)	2,089

First row, first column reads: 1992 public high school graduates earned on average a total of 23.75 Carnegie units in high school.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 10—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected student characteristics

Student characteristics	Number of Carnegie units in vocational education 0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Un-weighted Ns
Total[1]	9.33	16.75	15.98	14.44	12.54	10.00	7.21	5.20	8.55	
(s.e.)	(0.639)	(0.762)	(0.764)	(0.623)	(0.577)	(0.495)	(0.358)	(0.344)	(0.479)	11,707
Sex										
Male	8.17	14.91	15.89	15.45	12.58	10.65	7.21	6.02	9.12	
(s.e.)	(0.581)	(1.043)	(1.297)	(1.084)	(0.835)	(0.765)	(0.455)	(0.543)	(0.642)	5,760
Female	10.59	18.75	16.19	13.62	12.51	9.28	7.19	4.20	7.66	
(s.e.)	(1.080)	(1.028)	(0.850)	(0.643)	(0.738)	(0.572)	(0.534)	(0.365)	(0.627)	5,917
Race–ethnicity										
White, non-Hispanic	10.16	17.54	15.89	14.42	11.54	9.45	6.95	4.88	9.17	
(s.e.)	(0.823)	(0.896)	(0.924)	(0.755)	(0.622)	(0.542)	(0.394)	(0.350)	(0.574)	8,269
Black, non-Hispanic	5.52	11.23	17.89	15.77	16.82	12.63	8.30	5.75	6.09	
(s.e.)	(1.015)	(1.441)	(2.598)	(2.186)	(2.204)	(1.747)	(1.202)	(0.996)	(0.952)	1,023
Hispanic	6.52	17.53	16.09	14.45	13.45	10.99	8.42	6.62	5.94	
(s.e.)	(1.072)	(2.719)	(1.483)	(1.489)	(1.749)	(1.495)	(1.499)	(1.814)	(0.934)	1,365
Asian	14.45	21.62	14.16	12.58	14.49	8.79	5.34	2.62	5.96	
(s.e.)	(1.567)	(2.369)	(1.746)	(1.607)	(2.266)	(1.731)	(1.469)	(0.824)	(3.221)	855
Native American	4.64	5.91	16.10	17.22	18.20	11.45	7.30	9.34	9.83	
(s.e.)	(2.148)	(1.980)	(3.772)	(4.541)	(3.812)	(2.985)	(2.386)	(3.437)	(4.250)	118
Total specific labor market preparation Carnegie units accumulated										
Zero	49.46	32.88	10.59	3.81	0.98	0.65	0.84	0.32	0.46	
(s.e.)	(2.111)	(1.957)	(1.165)	(0.617)	(0.322)	(0.306)	(0.615)	(0.234)	(0.219)	1,598
0.01–0.99	28.38	42.92	13.76	8.71	1.67	3.99	0.42	0.06	0.09	
(s.e.)	(4.224)	(3.764)	(1.641)	(3.380)	(0.545)	(1.657)	(0.186)	(0.064)	(0.066)	1,131
1.00–1.99	(2)	36.35	35.98	14.84	7.77	2.66	1.11	0.54	0.75	
(s.e.)	(2)	(2.221)	(2.287)	(1.084)	(1.062)	(0.392)	(0.232)	(0.161)	(0.244)	2,639
2.00–2.99	(2)	(2)	30.13	35.31	19.59	9.27	3.21	1.79	0.71	
(s.e.)	(2)	(2)	(1.997)	(2.146)	(1.571)	(1.420)	(0.457)	(0.361)	(0.208)	1,998
3.00–3.99	(2)	(2)	(2)	29.89	33.72	19.62	9.45	4.75	2.57	
(s.e.)	(2)	(2)	(2)	(1.878)	(2.009)	(1.494)	(0.942)	(0.829)	(0.509)	1,475
4.00 or more	(2)	(2)	(2)	(2)	11.99	19.64	20.39	16.54	31.45	
(s.e.)	(2)	(2)	(2)	(2)	(1.299)	(1.172)	(1.109)	(1.107)	(1.572)	2,866

Table 10—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected student characteristics—Continued

Student characteristics	Number of Carnegie units in vocational education									Un-weighted Ns
	0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	
Area of specialization[3]										
College prep	18.53	28.32	21.77	14.35	8.79	4.79	1.98	0.59	0.90	
(s.e.)	(1.611)	(1.506)	(1.156)	(0.766)	(0.690)	(0.445)	(0.336)	(0.150)	(0.452)	3,951
Vocational	(2)	(2)	(2)	(2)	5.86	9.37	15.76	18.25	50.75	
(s.e.)	(2)	(2)	(2)	(2)	(1.064)	(1.201)	(1.925)	(1.833)	(2.580)	902
Other	5.55	12.65	14.93	16.38	15.43	12.91	8.94	6.00	7.20	
(s.e.)	(0.427)	(0.825)	(1.067)	(0.940)	(0.874)	(0.733)	(0.496)	(0.462)	(0.491)	6,854
Area of vocational program concentration[4]										
None	12.33	22.14	21.13	17.39	12.34	7.16	3.54	2.23	1.75	
(s.e.)	(0.823)	(0.952)	(0.990)	(0.808)	(0.698)	(0.508)	(0.270)	(0.263)	(0.209)	8,865
Agriculture	(2)	(2)	(2)	1.86	10.63	14.04	17.34	15.83	40.3	
(s.e.)	(2)	(2)	(2)	(0.865)	(2.113)	(2.207)	(2.787)	(3.092)	(5.065)	306
Business & office	(2)	(2)	(2)	6.51	14.70	21.38	22.57	10.78	24.05	
(s.e.)	(2)	(2)	(2)	(1.035)	(1.648)	(2.096)	(2.360)	(1.229)	(2.399)	898
Marketing & distribution	(2)	(2)	(2)	5.16	22.78	19.30	19.56	15.38	17.82	
(s.e.)	(2)	(2)	(2)	(1.604)	(7.154)	(4.268)	(4.078)	(3.783)	(3.519)	159
Health	(2)	(2)	(2)	3.61	8.72	20.88	20.67	9.18	36.94	
(s.e.)	(2)	(2)	(2)	(1.705)	(3.446)	(5.983)	(5.300)	(3.199)	(6.433)	79
Occupational home economics	(2)	(2)	(2)	3.50	10.53	13.95	18.39	18.60	35.03	
(s.e.)	(2)	(2)	(2)	(2.211)	(3.733)	(5.198)	(3.834)	(4.782)	(5.869)	195
Trade & industry	(2)	(2)	(2)	5.43	12.26	17.70	16.09	16.24	32.29	
(s.e.)	(2)	(2)	(2)	(0.804)	(1.252)	(1.804)	(1.424)	(1.662)	(2.241)	1,142
Technical & communications	(2)	(2)	(2)	9.29	10.33	38.80	11.51	14.59	15.48	
(s.e.)	(2)	(2)	(2)	(3.947)	(3.998)	(8.290)	(4.269)	(5.545)	(4.969)	63

First row, first column reads: Of all 1992 public high school graduates, 9.33 percent earned fewer than 1.00 Carnegie units in vocational education.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 11—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected special populations characteristics

Special populations characteristics	Number of Carnegie units in vocational education 0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Un-weighted Ns
Total[1]	9.33	16.75	15.98	14.44	12.54	10.00	7.21	5.20	8.55	
(s.e.)	(0.639)	(0.762)	(0.764)	(0.623)	(0.577)	(0.495)	(0.358)	(0.344)	(0.479)	11,707
Socioeconomic status										
Lowest quartile	3.73	10.58	11.50	14.24	14.65	11.97	11.40	7.68	14.25	
(s.e.)	(0.473)	(1.504)	(1.043)	(1.512)	(1.318)	(0.910)	(0.904)	(0.771)	(1.354)	2,274
Second quartile	4.51	12.90	15.17	15.02	13.56	11.60	8.13	6.67	12.44	
(s.e.)	(0.564)	(1.138)	(2.118)	(1.281)	(1.294)	(1.245)	(0.670)	(0.716)	(1.040)	2,846
Third quartile	7.79	17.33	20.16	14.51	13.03	9.92	6.31	4.26	6.67	
(s.e.)	(0.661)	(1.185)	(1.491)	(0.983)	(1.017)	(0.890)	(0.538)	(0.727)	(0.724)	3,011
Highest quartile	20.26	26.28	17.32	15.43	8.25	5.87	2.90	1.93	1.76	
(s.e.)	(1.944)	(1.822)	(1.057)	(1.577)	(0.723)	(0.552)	(0.548)	(0.302)	(0.276)	3,063
Special needs status[2]										
Special needs	3.95	9.89	13.14	13.85	17.44	12.93	9.40	8.32	11.07	
(s.e.)	(0.580)	(1.090)	(1.159)	(1.355)	(1.470)	(1.046)	(0.785)	(0.939)	(0.883)	2,688
No special needs	11.80	18.68	17.48	14.83	10.97	8.87	6.12	4.02	7.24	
(s.e.)	(0.906)	(0.802)	(0.981)	(0.756)	(0.588)	(0.547)	(0.360)	(0.307)	(0.521)	8,137
Limited English proficiency status										
Limited English proficient	6.97	11.59	13.75	12.58	19.15	13.36	8.29	4.51	9.80	
(s.e.)	(2.461)	(3.611)	(2.581)	(2.713)	(3.263)	(4.118)	(2.283)	(1.719)	(2.83)	225
English proficient	9.92	16.70	16.55	14.77	12.41	9.62	6.88	4.98	8.18	
(s.e.)	(0.714)	(0.705)	(0.836)	(0.662)	(0.622)	(0.479)	(0.358)	(0.341)	(0.489)	10,349

Table 11—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected special populations characteristics—Continued

Special populations characteristics	Number of Carnegie units in vocational education									Unweighted Ns
	0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	
Handicap status[3]										
Handicapped	4.36	8.48	14.38	10.84	14.19	11.76	9.65	8.18	18.17	
(s.e.)	(0.932)	(1.302)	(3.182)	(1.677)	(2.104)	(1.410)	(1.615)	(2.231)	(2.655)	611
Not handicapped	10.15	17.56	16.58	14.81	12.42	9.45	6.71	4.76	7.56	
(s.e.)	(0.738)	(0.821)	(0.860)	(0.685)	(0.625)	(0.490)	(0.365)	(0.331)	(0.470)	9,923
Secondary GPA										
3.3 or higher	18.09	30.01	18.66	11.74	7.19	6.82	3.14	1.52	2.83	
(s.e.)	(1.270)	(2.007)	(1.477)	(0.824)	(0.741)	(0.751)	(0.428)	(0.283)	(0.457)	2,238
2.6 to less than 3.3	9.96	18.66	19.25	15.12	11.68	7.79	5.99	3.36	8.20	
(s.e.)	(0.684)	(1.046)	(1.718)	(1.228)	(0.872)	(0.795)	(0.507)	(0.353)	(0.821)	3,936
1.6 to less than 2.6	6.52	11.49	13.15	15.27	14.36	11.93	9.34	7.13	10.81	
(s.e.)	(1.164)	(1.131)	(0.861)	(1.059)	(0.950)	(0.702)	(0.650)	(0.577)	(0.724)	4,928
Less than 1.6	2.38	8.45	11.71	12.30	18.60	16.31	9.61	11.13	9.52	
(s.e.)	(0.740)	(1.500)	(1.952)	(1.684)	(3.017)	(3.040)	(1.873)	(2.326)	(1.409)	600

Table 11—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected special populations characteristics—Continued

	Number of Carnegie units in vocational education									
Special populations characteristics	0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Un-weighted Ns
Remedial Carnegie units accumulated[4]										
Zero	9.99	18.51	16.89	15.04	11.66	9.86	6.67	4.26	7.13	
(s.e.)	(0.529)	(0.808)	(0.865)	(0.707)	(0.565)	(0.555)	(0.412)	(0.295)	(0.469)	9,589
0.01-0.99	13.53	14.84	10.82	14.82	18.32	7.87	6.96	4.96	7.88	
(s.e.)	(7.546)	(5.604)	(2.120)	(3.854)	(3.984)	(1.621)	(1.464)	(1.280)	(1.836)	542
1.00-1.99	4.70	9.49	13.48	10.69	14.33	11.22	10.74	10.47	14.89	
(s.e.)	(0.864)	(1.347)	(2.014)	(1.205)	(1.537)	(1.477)	(1.468)	(1.710)	(1.914)	972
2.00-2.99	2.76	5.18	13.82	11.13	19.83	12.81	7.96	11.93	14.57	
(s.e.)	(1.221)	(1.255)	(3.218)	(2.355)	(7.293)	(2.521)	(2.077)	(5.073)	(2.840)	277
3.00-3.99	2.17	4.54	16.21	14.27	11.22	10.38	13.49	5.25	22.47	
(s.e.)	(1.278)	(1.452)	(4.070)	(3.845)	(3.982)	(3.694)	(3.395)	(2.135)	(4.884)	139
4.00 or more	2.42	4.28	7.62	9.55	14.74	13.64	9.61	13.37	24.76	
(s.e.)	(1.403)	(1.476)	(3.211)	(2.925)	(3.350)	(3.449)	(2.479)	(3.353)	(4.440)	188
Student parent status										
Parent	1.33	17.54	10.10	8.83	16.82	13.10	9.62	7.92	14.73	
(s.e.)	(0.938)	(8.179)	(2.257)	(2.085)	(3.322)	(2.946)	(2.023)	(2.858)	(4.482)	242
Nonparent	9.93	17.39	16.53	14.87	12.07	9.54	6.82	4.84	8.03	
(s.e.)	(0.704)	(0.788)	(0.819)	(0.660)	(0.590)	(0.495)	(0.356)	(0.352)	(0.479)	10,784
Expecting	1.90	6.88	17.06	12.58	14.06	12.38	11.30	6.66	17.18	
(s.e.)	(1.211)	(2.115)	(6.638)	(3.065)	(3.723)	(3.782)	(3.228)	(2.098)	(4.708)	137

First row, first column reads: Of all 1992 public high school graduates, 9.33 percent earned fewer than 1.00 Carnegie units in vocational education.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 12—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected school characteristics

School characteristics	Number of Carnegie units in vocational education 0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Un-weighted Ns
Total*	9.33	16.75	15.98	14.44	12.54	10.00	7.21	5.20	8.55	
(s.e.)	(0.639)	(0.762)	(0.764)	(0.623)	(0.577)	(0.495)	(0.358)	(0.344)	(0.479)	11,707
School size										
1-500	2.63	10.48	11.28	12.51	16.21	16.00	10.02	5.95	14.90	
(s.e.)	(0.600)	(2.151)	(1.036)	(1.025)	(1.806)	(1.995)	(0.877)	(0.671)	(1.717)	1,571
501-1,000	8.08	15.82	14.44	13.55	12.46	9.25	8.96	7.28	10.17	
(s.e.)	(0.797)	(1.113)	(0.960)	(1.000)	(0.953)	(0.620)	(0.909)	(0.658)	(1.000)	2,844
1,001-1,500	11.92	17.24	18.67	13.99	10.68	8.88	6.64	5.44	6.54	
(s.e.)	(0.958)	(1.046)	(1.360)	(0.773)	(0.981)	(0.796)	(0.571)	(0.838)	(0.705)	2,919
1,501 or more	11.57	21.90	17.82	14.67	12.33	8.55	4.81	3.63	4.72	
(s.e.)	(1.027)	(1.405)	(1.090)	(0.850)	(0.894)	(0.792)	(0.489)	(0.707)	(0.628)	2,978
Urbanicity										
Urban	10.82	19.86	16.80	13.16	13.71	8.96	6.49	3.42	6.78	
(s.e.)	(0.985)	(1.916)	(1.676)	(1.020)	(1.547)	(0.868)	(0.853)	(0.696)	(0.984)	2,377
Suburban	11.66	18.69	17.69	15.63	11.67	8.79	5.82	4.18	5.86	
(s.e.)	(1.257)	(1.168)	(1.382)	(1.187)	(0.821)	(0.722)	(0.475)	(0.433)	(0.541)	4,972
Rural	5.64	12.64	13.59	13.73	12.96	11.62	9.54	7.43	12.86	
(s.e.)	(0.580)	(0.943)	(0.835)	(0.753)	(0.812)	(0.919)	(0.692)	(0.648)	(0.976)	4,268
Absentee rate										
0-5%	10.83	15.72	15.25	14.03	12.48	10.91	7.75	5.43	7.61	
(s.e.)	(0.984)	(1.009)	(1.100)	(0.929)	(0.753)	(1.003)	(0.606)	(0.525)	(0.756)	3,538
6-10%	9.42	17.73	16.49	14.02	12.15	9.30	7.35	4.87	8.66	
(s.e.)	(0.682)	(0.917)	(0.878)	(0.666)	(0.935)	(0.689)	(0.548)	(0.454)	(0.762)	4,379
11% or more	4.88	18.28	14.16	11.98	14.16	11.67	8.27	7.05	9.54	
(s.e.)	(1.327)	(3.371)	(1.451)	(1.408)	(2.039)	(1.771)	(1.143)	(1.370)	(1.940)	833

Table 12—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in vocational education, by selected school characteristics—Continued

School characteristics	Number of Carnegie units in vocational education 0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Unweighted Ns
Percent of students receiving free or reduced-price lunch										
0-5%	12.64	22.01	16.97	14.21	11.19	8.54	5.34	3.63	5.48	
(s.e.)	(1.192)	(1.553)	(1.300)	(1.041)	(1.162)	(1.147)	(0.649)	(0.545)	(0.727)	2,568
6-10%	10.96	19.20	17.78	13.85	10.22	7.10	6.69	4.88	9.33	
(s.e.)	(0.902)	(1.420)	(1.583)	(1.003)	(0.907)	(0.682)	(0.975)	(0.604)	(1.233)	1,551
11-20%	9.07	14.87	15.77	15.03	10.75	10.94	8.09	6.16	9.32	
(s.e.)	(1.009)	(1.085)	(0.922)	(1.120)	(0.837)	(0.850)	(0.685)	(0.792)	(1.055)	2,146
21% or more	5.98	14.04	14.94	13.11	15.37	11.33	8.76	6.66	9.82	
(s.e.)	(0.608)	(1.171)	(0.996)	(0.726)	(1.128)	(0.837)	(0.635)	(0.791)	(0.995)	3,468
Percent of students taking remedial reading										
0%	8.91	17.07	14.03	14.35	12.38	11.09	8.32	5.18	8.67	
(s.e.)	(0.927)	(1.995)	(1.179)	(0.988)	(1.295)	(1.724)	(1.243)	(0.801)	(1.115)	1,713
1-5%	12.15	19.02	17.84	14.31	11.24	8.03	5.98	4.29	7.16	
(s.e.)	(1.007)	(1.200)	(1.275)	(0.861)	(0.860)	(0.542)	(0.580)	(0.460)	(0.696)	3,523
6-10%	7.68	16.39	14.17	14.38	12.89	10.99	8.31	5.87	9.31	
(s.e.)	(0.794)	(1.150)	(0.913)	(1.007)	(1.162)	(0.947)	(0.696)	(0.887)	(1.088)	2,461
11% or more	6.75	14.57	16.45	12.88	14.00	11.28	7.81	6.98	9.28	
(s.e.)	(0.841)	(1.220)	(1.112)	(0.834)	(1.209)	(1.100)	(0.688)	(0.992)	(1.245)	2,231
Percent of students in special education										
0%	24.96	28.31	11.48	9.86	6.95	5.79	4.62	2.64	5.38	
(s.e.)	(7.321)	(14.046)	(3.931)	(2.609)	(3.138)	(2.730)	(2.624)	(1.648)	(3.459)	95
1-5%	9.84	17.35	16.65	13.51	13.40	9.97	6.31	4.69	8.27	
(s.e.)	(1.075)	(1.270)	(1.538)	(0.907)	(1.211)	(1.345)	(0.678)	(0.616)	(1.101)	2,452
6-10%	8.39	16.39	15.64	14.35	12.88	9.47	7.98	6.04	8.85	
(s.e.)	(0.740)	(0.877)	(0.832)	(0.791)	(0.956)	(0.566)	(0.609)	(0.545)	(0.768)	4,018
11% or more	9.57	16.86	16.51	13.88	10.98	11.48	8.25	4.28	8.20	
(s.e.)	(1.089)	(1.257)	(1.113)	(1.015)	(0.839)	(1.196)	(0.708)	(0.534)	(1.043)	2,089

First row, first column reads: Of all 1992 public high school graduates, 9.33 percent earned fewer than 1.00 Carnegie units in vocational education.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 13—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected student characteristics

	Number of Carnegie units in specific labor market preparation						
Student characteristics	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	Un-weighted Ns
Total[1]	12.93	10.33	22.19	17.29	12.22	25.04	
(s.e.)	(0.559)	(0.803)	(0.824)	(0.701)	(0.485)	(0.824)	11,707
Sex							
Male	10.85	7.38	20.37	18.41	12.91	30.07	
(s.e.)	(0.661)	(0.974)	(1.326)	(1.157)	(0.748)	(1.242)	5,760
Female	14.97	13.34	24.07	16.18	11.66	19.78	
(s.e.)	(0.811)	(1.214)	(1.051)	(0.784)	(0.615)	(0.971)	5,917
Race–ethnicity							
White, non-Hispanic	13.45	10.84	22.21	17.01	12.28	24.21	
(s.e.)	(0.684)	(0.978)	(1.037)	(0.785)	(0.585)	(0.910)	8,269
Black, non-Hispanic	11.45	7.95	21.10	21.54	12.07	25.89	
(s.e.)	(1.367)	(1.815)	(2.002)	(2.907)	(1.220)	(2.141)	1,023
Hispanic	10.41	10.39	22.71	16.18	11.14	29.17	
(s.e.)	(1.271)	(2.343)	(2.042)	(1.571)	(1.367)	(2.952)	1,365
Asian	14.70	10.75	26.48	14.16	14.25	19.67	
(s.e.)	(1.631)	(1.307)	(2.602)	(1.560)	(2.453)	(3.468)	855
Native American	8.53	6.26	17.09	13.44	17.17	37.51	
(s.e.)	(2.625)	(1.886)	(4.136)	(3.737)	(4.148)	(5.351)	118
Total vocational Carnegie units accumulated							
0.00–1.99	40.83	28.24	30.93	(2)	(2)	(2)	
(s.e.)	(1.809)	(2.051)	(1.813)	(2)	(2)	(2)	3,127
2.00–3.99	6.12	7.63	37.06	37.18	12.01	(2)	
(s.e.)	(0.584)	(1.315)	(1.806)	(1.732)	(0.869)	(2)	3,587
4.00–5.99	0.93	2.59	10.27	22.14	28.93	35.14	
(s.e.)	(0.256)	(0.796)	(1.102)	(1.542)	(1.489)	(1.845)	2,565
6.00–7.99	1.21	0.40	2.95	6.96	13.98	74.50	
(s.e.)	(0.682)	(0.161)	(0.519)	(0.846)	(1.201)	(1.724)	1,469
8.00 or more	0.70	0.10	1.94	1.43	3.67	92.15	
(s.e.)	(0.332)	(0.079)	(0.633)	(0.420)	(0.718)	(1.147)	959
Area of specialization[3]							
College prep	21.76	14.23	29.73	16.85	9.78	7.64	
(s.e.)	(1.121)	(1.531)	(1.452)	(0.973)	(0.706)	(0.789)	3,951
Vocational	(2)	(2)	(2)	(2)	(2)	100.00	
(s.e.)	(2)	(2)	(2)	(2)	(2)	(0.000)	902
Other	9.82	9.55	20.98	19.78	15.13	24.73	
(s.e.)	(0.649)	(0.981)	(1.053)	(1.010)	(0.695)	(0.994)	6,854

Table 13—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected student characteristics—Continued

	Number of Carnegie units in specific labor market preparation						
Student characteristics	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	Unweighted Ns
Area of vocational program concentration[4]							
None	17.09	13.65	29.33	22.86	10.30	6.76	
(s.e.)	(0.723)	(1.023)	(1.043)	(0.907)	(0.553)	(0.529)	8,865
Agriculture	(2)	(2)	(2)	(2)	6.97	93.03	
(s.e.)	(2)	(2)	(2)	(2)	(1.958)	(1.958)	306
Business & office	(2)	(2)	(2)	(2)	26.61	73.39	
(s.e.)	(2)	(2)	(2)	(2)	(1.951)	(1.951)	898
Marketing & distribution	(2)	(2)	(2)	(2)	23.78	76.22	
(s.e.)	(2)	(2)	(2)	(2)	(6.864)	(6.864)	159
Health	(2)	(2)	(2)	(2)	21.05	78.95	
(s.e.)	(2)	(2)	(2)	(2)	(6.491)	(6.491)	79
Occupational home economics	(2)	(2)	(2)	(2)	13.77	86.23	
(s.e.)	(2)	(2)	(2)	(2)	(3.016)	(3.016)	195
Trade & industry	(2)	(2)	(2)	(2)	14.65	85.35	
(s.e.)	(2)	(2)	(2)	(2)	(1.565)	(1.565)	1,142
Technical & communications	(2)	(2)	(2)	(2)	12.06	87.94	
(s.e.)	(2)	(2)	(2)	(2)	(4.314)	(4.314)	63

First row, first column reads: Of all 1992 public high school graduates, 12.93 percent earned no Carnegie units in specific labor market preparation courses.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 14—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected special populations characteristics

	Number of Carnegie units in specific labor market preparation						
Special populations characteristics	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	Un-weighted Ns
Total[1]	12.93	10.33	22.19	17.29	12.22	25.04	
(s.e.)	(0.559)	(0.803)	(0.824)	(0.701)	(0.485)	(0.824)	11,707
Socioeconomic status							
Lowest quartile	7.57	7.96	17.15	17.60	14.77	34.95	
(s.e.)	(0.650)	(1.430)	(1.129)	(1.525)	(1.102)	(1.819)	2,274
Second quartile	9.86	6.50	21.09	19.39	13.72	29.44	
(s.e.)	(1.012)	(0.690)	(2.088)	(1.684)	(1.077)	(1.500)	2,846
Third quartile	12.09	9.83	24.39	18.17	11.79	23.73	
(s.e.)	(0.920)	(0.908)	(1.483)	(1.321)	(0.857)	(1.405)	3,011
Highest quartile	21.70	17.32	25.32	14.98	10.18	10.49	
(s.e.)	(1.360)	(2.519)	(1.737)	(1.019)	(0.841)	(0.881)	3,063
Special needs status[2]							
Special needs	8.29	7.15	17.76	18.25	13.97	34.58	
(s.e.)	(0.869)	(1.173)	(1.091)	(1.596)	(1.161)	(1.652)	2,688
No special needs	15.11	11.19	23.87	17.13	11.75	20.94	
(s.e.)	(0.710)	(1.002)	(1.035)	(0.779)	(0.537)	(0.824)	8,137
Limited English proficiency status							
Limited English proficient	10.23	4.77	18.24	22.64	10.69	33.44	
(s.e.)	(2.522)	(1.520)	(2.997)	(3.825)	(2.084)	(5.093)	225
English proficient	13.51	10.25	22.40	17.41	12.41	24.02	
(s.e.)	(0.609)	(0.830)	(0.842)	(0.751)	(0.533)	(0.826)	10,349
Handicap status[3]							
Handicapped	7.91	5.30	16.81	17.19	14.26	38.52	
(s.e.)	(1.169)	(1.064)	(1.917)	(3.325)	(1.928)	(3.265)	611
Not handicapped	13.69	10.42	23.15	17.29	12.20	23.25	
(s.e.)	(0.624)	(0.864)	(0.935)	(0.748)	(0.544)	(0.834)	9,923
Secondary GPA							
3.3 or higher	22.45	14.55	28.42	13.46	10.25	10.86	
(s.e.)	(1.568)	(1.639)	(1.727)	(0.918)	(0.902)	(0.876)	2,238
2.6 to less than 3.3	14.46	11.15	24.68	18.57	10.43	20.70	
(s.e.)	(0.878)	(1.263)	(1.702)	(1.198)	(0.683)	(1.145)	3,936
1.6 to less than 2.6	8.88	8.50	18.59	17.80	14.23	32.00	
(s.e.)	(0.705)	(1.269)	(1.081)	(1.183)	(0.837)	(1.332)	4,928
Less than 1.6	8.09	7.69	17.77	16.55	12.82	37.09	
(s.e.)	(1.693)	(2.634)	(2.226)	(2.097)	(2.634)	(3.150)	600

Table 14—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected special populations characteristics—Continued

Special populations characteristics	Number of Carnegie units in specific labor market preparation						Un-weighted Ns
	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	
Remedial Carnegie units accumulated[4]							
Zero	14.18	10.73	23.11	17.54	12.01	22.43	
(s.e.)	(0.643)	(0.797)	(0.891)	(0.746)	(0.531)	(0.826)	9,589
0.01-0.99	6.74	15.41	23.10	16.15	13.24	25.35	
(s.e.)	(1.992)	(7.422)	(5.783)	(3.819)	(2.738)	(4.275)	542
1.00-1.99	8.94	5.89	19.67	14.28	13.60	37.62	
(s.e.)	(1.643)	(1.073)	(1.948)	(1.525)	(1.421)	(2.697)	972
2.00-2.99	5.87	6.86	12.45	23.56	11.02	40.24	
(s.e.)	(1.692)	(1.961)	(2.442)	(7.199)	(2.157)	(5.661)	277
3.00-3.99	7.77	8.10	11.99	21.14	13.57	37.42	
(s.e.)	(2.439)	(3.562)	(3.049)	(4.879)	(4.595)	(5.251)	139
4.00 or more	10.21	3.33	11.33	12.75	12.22	50.16	
(s.e.)	(2.991)	(1.268)	(3.394)	(3.187)	(3.275)	(4.845)	188
Student parent status							
Parent	4.03	17.37	21.70	13.79	12.60	30.51	
(s.e.)	(1.349)	(8.255)	(3.552)	(3.078)	(3.321)	(5.267)	242
Nonparent	13.37	10.60	22.47	17.59	12.31	23.66	
(s.e.)	(0.589)	(0.878)	(0.874)	(0.752)	(0.499)	(0.833)	10,784
Expecting	5.89	5.20	26.74	18.28	10.24	33.65	
(s.e.)	(2.178)	(1.785)	(6.414)	(3.825)	(2.766)	(5.740)	137

First row, first column reads: Of all 1992 public high school graduates, 12.93 percent earned no Carnegie units in specific labor market preparation courses.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 15—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected school characteristics

	Number of Carnegie units in specific labor market preparation						
School characteristics	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	Un-weighted Ns
Total*	12.93	10.33	22.19	17.29	12.22	25.04	
(s.e.)	(0.559)	(0.803)	(0.824)	(0.701)	(0.485)	(0.824)	11,707
School size							
1-500	6.45	7.52	18.38	17.45	16.94	33.25	
(s.e.)	(0.939)	(2.584)	(1.424)	(1.929)	(1.751)	(2.395)	1,571
501-1,000	12.73	8.53	21.04	17.70	12.15	27.85	
(s.e.)	(1.144)	(0.713)	(1.296)	(1.163)	(0.887)	(1.486)	2,844
1,001-1,500	15.53	10.42	21.89	16.23	11.34	24.60	
(s.e.)	(1.085)	(0.955)	(1.173)	(1.176)	(0.692)	(1.569)	2,919
1,501 or more	16.40	11.96	22.64	16.74	12.64	19.62	
(s.e.)	(1.082)	(1.243)	(1.079)	(0.974)	(0.947)	(1.344)	2,978
Urbanicity							
Urban	14.64	11.49	21.71	17.32	11.96	22.88	
(s.e.)	(1.085)	(1.823)	(1.542)	(1.682)	(1.012)	(1.799)	2,377
Suburban	13.70	12.62	24.23	16.64	11.43	21.39	
(s.e.)	(0.904)	(1.480)	(1.537)	(1.037)	(0.722)	(1.232)	4,972
Rural	10.98	6.72	20.08	17.80	13.79	30.62	
(s.e.)	(0.865)	(0.612)	(1.028)	(1.081)	(0.899)	(1.279)	4,268
Absentee rate							
0-5%	13.73	9.16	20.57	18.81	13.45	24.28	
(s.e.)	(1.038)	(0.808)	(1.050)	(1.284)	(0.896)	(1.312)	3,538
6-10%	14.20	9.97	22.61	16.58	11.71	24.94	
(s.e.)	(0.854)	(0.700)	(0.935)	(0.829)	(0.640)	(1.279)	4,379
11% or more	10.59	9.84	20.64	12.34	14.73	31.86	
(s.e.)	(1.642)	(4.422)	(2.362)	(1.382)	(2.059)	(3.047)	833
Percent of students receiving free or reduced price lunch							
0-5%	15.70	13.43	22.30	17.47	11.11	20.00	
(s.e.)	(1.309)	(1.648)	(1.364)	(1.517)	(0.931)	(1.719)	2,568
6-10%	15.82	10.61	22.05	16.46	12.32	22.74	
(s.e.)	(1.396)	(1.217)	(1.256)	(1.632)	(1.052)	(1.730)	1,551
11-20%	12.81	8.73	20.82	19.11	11.53	27.01	
(s.e.)	(1.076)	(0.771)	(1.009)	(1.285)	(0.865)	(1.530)	2,146
21% or more	11.08	7.88	21.07	15.21	14.47	30.30	
(s.e.)	(0.849)	(1.023)	(1.167)	(0.836)	(0.923)	(1.497)	3,468
Percent of students taking remedial reading							
0%	13.71	9.99	22.53	17.99	11.99	23.79	
(s.e.)	(1.260)	(2.416)	(1.562)	(1.779)	(1.337)	(1.886)	1,713
1-5%	14.98	11.32	21.92	18.16	11.83	21.79	
(s.e.)	(1.142)	(1.043)	(1.023)	(1.181)	(0.789)	(1.295)	3,523
6-10%	12.42	9.11	19.33	16.49	13.86	28.79	
(s.e.)	(1.084)	(0.958)	(0.976)	(1.119)	(1.084)	(1.759)	2,461
11% or more	11.68	8.41	21.62	15.22	13.70	29.37	
(s.e.)	(1.083)	(1.032)	(1.507)	(0.865)	(1.073)	(1.804)	2,231

Table 15—Percentage of 1992 public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by selected school characteristics—Continued

	Number of Carnegie units in specific labor market preparation						
School characteristics	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	Un-weighted Ns
Percent of students in special education							
0%	26.35	30.36	11.30	9.84	5.27	16.88	
(s.e.)	(7.711)	(18.749)	(4.021)	(3.974)	(2.631)	(6.192)	95
1-5%	12.79	10.06	21.91	18.03	13.20	24.01	
(s.e.)	(1.192)	(0.994)	(1.305)	(1.649)	(0.943)	(1.833)	2,452
6-10%	12.62	8.59	21.91	17.85	12.66	26.37	
(s.e.)	(0.865)	(0.658)	(1.038)	(0.822)	(0.777)	(1.259)	4,018
11% or more	14.76	9.25	21.86	15.85	12.87	25.41	
(s.e.)	(1.408)	(1.032)	(1.062)	(1.145)	(1.165)	(1.782)	2,089

First row, first column reads: Of all 1992 public high school graduates, 12.93 percent earned no Carnegie units in specific labor market preparation courses.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 16—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected student characteristics

						Trade & industry						
Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & communications	Unweighted Ns
Total[1]	9.74	55.65	8.44	3.99	11.21	34.83	5.29	9.43	29.20	1.06	23.06	
(s.e.)	(0.654)	(1.039)	(0.521)	(0.440)	(0.626)	(0.909)	(0.381)	(0.515)	(0.885)	(0.223)	(0.904)	11,707
Sex												
Male	14.05	48.09	8.49	2.46	5.41	54.14	9.57	17.36	44.64	1.78	25.32	
(s.e.)	(1.083)	(1.471)	(0.771)	(0.424)	(0.596)	(1.474)	(0.722)	(0.999)	(1.440)	(0.377)	(1.135)	5,760
Female	5.25	63.47	8.47	5.46	16.56	15.83	1.08	1.50	14.00	0.37	21.19	
(s.e.)	(0.551)	(1.270)	(0.582)	(0.601)	(0.925)	(0.879)	(0.234)	(0.215)	(0.865)	(0.198)	(1.155)	5,917
Race-ethnicity												
White, non-Hispanic	10.67	55.51	8.66	3.63	10.51	34.47	4.81	9.49	29.52	1.11	23.22	
(s.e.)	(0.770)	(1.270)	(0.632)	(0.481)	(0.716)	(1.051)	(0.381)	(0.607)	(1.050)	(0.240)	(1.060)	8,269
Black, non-Hispanic	8.32	55.89	7.84	4.17	15.29	30.95	7.70	5.61	22.62	0.60	19.72	
(s.e.)	(2.004)	(2.474)	(1.239)	(1.078)	(2.107)	(2.871)	(1.613)	(0.904)	(2.323)	(0.289)	(2.701)	1,023
Hispanic	5.65	57.85	8.42	5.58	12.51	37.72	5.19	11.05	30.55	1.71	25.58	
(s.e.)	(0.780)	(2.614)	(1.417)	(1.678)	(1.611)	(2.448)	(0.983)	(1.488)	(2.399)	(1.354)	(2.694)	1,365
Asian	2.46	60.46	6.77	5.30	5.96	36.61	4.57	9.35	31.88	0.29	29.22	
(s.e.)	(0.650)	(3.198)	(1.102)	(1.321)	(1.101)	(3.518)	(1.781)	(1.963)	(3.626)	(0.183)	(3.414)	855
Native American	10.93	56.31	8.84	7.69	15.44	51.16	13.66	17.51	41.11	0.50	15.25	
(s.e.)	(4.263)	(5.334)	(3.864)	(3.037)	(3.178)	(6.433)	(3.799)	(4.404)	(5.488)	(0.510)	(4.712)	118
Total vocational Carnegie units accumulated												
0.00-1.99	1.35	33.87	1.45	1.56	3.31	12.11	0.53	1.17	10.72	0.08	15.53	
(s.e.)	(0.266)	(2.073)	(0.283)	(0.357)	(0.531)	(1.464)	(0.123)	(0.189)	(1.461)	(0.036)	(1.497)	3,127
2.00-3.99	5.80	60.43	8.09	3.22	9.86	32.90	2.81	6.25	28.26	0.89	27.19	
(s.e.)	(0.849)	(1.769)	(1.042)	(0.517)	(1.146)	(1.567)	(0.335)	(0.640)	(1.517)	(0.248)	(1.506)	3,587
4.00-5.99	13.27	68.65	13.38	6.21	14.37	44.39	7.08	12.44	37.77	0.79	24.44	
(s.e.)	(1.540)	(1.723)	(1.189)	(1.110)	(1.166)	(1.712)	(0.946)	(1.214)	(1.676)	(0.180)	(1.471)	2,565
6.00-7.99	18.64	65.91	13.79	5.51	19.29	53.03	9.52	19.01	42.29	3.28	24.28	
(s.e.)	(1.807)	(2.026)	(1.397)	(0.827)	(1.635)	(1.893)	(1.026)	(1.456)	(2.069)	(1.345)	(1.706)	1,469
8.00 or more	27.12	55.95	10.23	6.06	20.06	59.33	17.76	24.13	47.38	2.09	25.97	
(s.e.)	(2.368)	(2.617)	(1.232)	(1.129)	(2.068)	(2.362)	(1.954)	(2.224)	(2.531)	(0.777)	(2.601)	959

Table 16—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected student characteristics—Continued

Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry						Technical & com- munications	Un- weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor- tation			
Total specific labor market preparation Carnegie units accumulated												
Zero	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	
(s.e.)	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	[2]	1,598
0.01–0.99	2.01	53.66	1.77	3.30	9.06	14.33	2.23	1.56	10.41	0.15	17.35	
(s.e.)	(0.526)	(3.934)	(0.504)	(0.890)	(1.584)	(2.348)	(1.586)	(0.380)	(1.751)	(0.080)	(2.841)	1,131
1.00–1.99	4.26	66.33	4.11	3.01	8.13	24.56	1.57	3.48	20.94	0.29	27.10	
(s.e.)	(0.567)	(1.957)	(0.521)	(0.568)	(0.869)	(1.802)	(0.259)	(0.482)	(1.787)	(0.102)	(1.778)	2,639
2.00–2.99	10.62	66.18	10.83	4.01	13.38	41.09	3.57	7.55	36.24	0.88	28.53	
(s.e.)	(2.057)	(2.413)	(1.600)	(0.760)	(1.590)	(2.214)	(0.516)	(0.946)	(2.232)	(0.375)	(1.856)	1,998
3.00–3.99	12.66	67.52	15.30	4.81	16.09	48.56	5.72	12.07	41.62	1.47	31.78	
(s.e.)	(1.449)	(2.045)	(1.729)	(0.798)	(1.512)	(2.057)	(0.741)	(1.212)	(2.156)	(0.362)	(1.885)	1,475
4.00 or more	20.78	62.69	14.39	6.77	16.74	59.32	13.54	22.83	48.43	2.57	25.72	
(s.e.)	(1.483)	(1.544)	(1.082)	(0.918)	(1.267)	(1.522)	(1.066)	(1.483)	(1.692)	(0.739)	(1.489)	2,866
Area of specialization[3]												
College prep	2.95	52.24	4.46	3.38	5.76	23.50	1.50	2.80	21.63	0.27	27.27	
(s.e.)	(0.389)	(1.732)	(0.542)	(0.692)	(0.700)	(1.514)	(0.287)	(0.354)	(1.499)	(0.095)	(1.433)	3,951
Vocational	18.76	45.94	12.82	4.29	13.12	62.01	17.68	25.33	48.54	0.87	19.31	
(s.e.)	(2.047)	(2.459)	(1.773)	(0.785)	(1.510)	(2.435)	(1.961)	(2.338)	(2.630)	(0.322)	(2.373)	902
Other	12.25	58.77	10.03	4.27	13.92	37.43	5.73	10.96	30.8	1.50	21.27	
(s.e.)	(0.908)	(1.264)	(0.723)	(0.480)	(0.827)	(1.139)	(0.500)	(0.705)	(1.097)	(0.360)	(1.079)	6,854

Table 16—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected student characteristics—Continued

Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transportation		
Area of vocational program concentration[4]												
None	7.22	55.35	7.33	3.56	10.08	28.40	2.56	5.51	24.23	0.73	23.57	
(s.e.)	(0.644)	(1.180)	(0.568)	(0.494)	(0.651)	(1.034)	(0.303)	(0.460)	(0.985)	(0.208)	(0.999)	8,865
Agriculture	100.00	42.92	7.07	1.51	6.70	44.98	11.83	15.68	31.94	2.15	17.63	
(s.e.)	(0.000)	(4.075)	(3.078)	(0.628)	(1.793)	(3.932)	(2.902)	(3.348)	(4.386)	(2.058)	(3.868)	306
Business & office	3.10	100.00	9.97	3.08	9.55	17.57	1.39	2.43	13.66	1.61	26.79	
(s.e.)	(0.619)	(0.000)	(1.313)	(0.866)	(1.350)	(2.198)	(0.466)	(0.655)	(1.978)	(1.217)	(2.746)	898
Marketing & distribution	8.45	42.31	100.00	2.69	10.38	24.61	7.25	3.65	17.25	0.52	11.51	
(s.e.)	(3.185)	(5.579)	(0.000)	(1.143)	(3.171)	(4.285)	(2.855)	(1.377)	(3.496)	(0.523)	(3.073)	159
Health	0.95	45.37	4.48	100.00	16.92	8.37	0.00	1.34	6.97	1.40	10.04	
(s.e.)	(0.955)	(7.414)	(2.217)	(0.000)	(5.419)	(4.020)	(0.000)	(1.340)	(3.801)	(1.396)	(3.721)	79
Occupational home economics	8.44	40.04	8.27	1.17	100.00	18.61	0.64	5.66	14.50	0.00	9.43	
(s.e.)	(3.343)	(5.668)	(2.372)	(0.870)	(0.000)	(3.998)	(0.491)	(2.131)	(3.613)	(0.000)	(2.336)	195
Trade & industry	14.48	32.90	4.63	3.14	4.26	100.00	27.86	45.29	84.47	3.15	18.35	
(s.e.)	(1.479)	(2.277)	(1.300)	(0.865)	(0.975)	(0.000)	(2.173)	(2.470)	(1.534)	(0.680)	(1.896)	1,142
Technical & communications	0.00	46.05	4.00	4.56	3.47	55.27	19.16	10.48	29.97	0.00	100.00	
(s.e.)	(0.000)	(7.383)	(2.461)	(2.555)	(2.481)	(9.060)	(9.152)	(5.189)	(8.013)	(0.000)	(0.000)	63

First row, first column reads: Of all 1992 public high school graduates, 9.74 percent completed one or more courses in agriculture.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one vocational program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 17—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected special populations characteristics

Special populations characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transportation		
Total[1]	9.74	55.65	8.44	3.99	11.21	34.83	5.29	9.43	29.20	1.06	23.06	
(s.e.)	(0.654)	(1.039)	(0.521)	(0.440)	(0.626)	(0.909)	(0.381)	(0.515)	(0.885)	(0.223)	(0.904)	11,707
Socioeconomic status												
Lowest quartile	13.41	58.43	11.08	5.59	16.47	36.40	6.51	11.20	29.54	0.87	20.62	
(s.e.)	(1.240)	(1.836)	(1.575)	(1.055)	(1.394)	(1.633)	(0.734)	(1.090)	(1.585)	(0.229)	(1.512)	2,274
Second quartile	12.82	58.59	7.94	3.76	11.68	37.73	6.75	11.02	31.66	1.16	21.73	
(s.e.)	(1.476)	(1.967)	(0.815)	(0.539)	(1.071)	(1.764)	(0.732)	(0.905)	(1.708)	(0.335)	(1.496)	2,846
Third quartile	8.80	57.03	9.06	3.71	10.16	35.99	5.01	8.77	30.11	1.39	24.25	
(s.e.)	(0.940)	(1.623)	(0.911)	(0.517)	(1.100)	(1.660)	(0.739)	(1.032)	(1.596)	(0.577)	(1.469)	3,011
Highest quartile	4.30	50.63	6.219	2.93	6.71	27.15	1.96	5.49	24.02	0.85	24.51	
(s.e.)	(0.594)	(2.063)	(0.607)	(0.665)	(0.723)	(1.793)	(0.281)	(0.630)	(1.762)	(0.387)	(1.663)	3,063
Special needs status[2]												
Special needs	12.95	52.32	11.93	3.99	14.17	47.76	8.97	15.56	38.04	1.98	19.59	
(s.e.)	(1.287)	(1.728)	(1.188)	(0.545)	(1.167)	(1.769)	(0.914)	(1.252)	(1.716)	(0.594)	(1.431)	2,688
No special needs	8.38	58.14	7.06	4.02	9.75	28.42	3.71	6.92	25.55	0.73	24.56	
(s.e.)	(0.692)	(1.227)	(0.466)	(0.572)	(0.676)	(0.982)	(0.336)	(0.469)	(0.958)	(0.208)	(1.035)	8,137
Limited English proficiency status												
Limited English proficient	12.17	54.37	5.97	2.20	9.74	43.12	9.62	11.15	32.08	0.42	29.48	
(s.e.)	(3.233)	(4.686)	(1.729)	(0.987)	(2.476)	(5.651)	(4.297)	(2.607)	(4.228)	(0.302)	(4.850)	225
English proficient	9.42	57.11	8.19	4.14	10.58	33.67	4.67	9.12	28.68	1.15	23.42	
(s.e.)	(0.678)	(1.065)	(0.500)	(0.485)	(0.635)	(0.948)	(0.339)	(0.545)	(0.925)	(0.256)	(0.950)	10,349

Table 17—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected special populations characteristics—Continued

						Trade & Industry						
Special populations characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & Communications	Unweighted Ns
Handicap status[3]												
Handicapped	15.31	53.05	8.16	4.51	16.00	51.33	9.68	15.64	42.78	1.16	19.15	
(s.e.)	(2.089)	(3.290)	(1.445)	(1.201)	(2.098)	(3.260)	(1.569)	(1.737)	(3.349)	(0.422)	(2.711)	611
Not handicapped	9.08	57.11	8.11	4.04	10.16	33.02	4.43	8.67	28.16	1.06	23.74	
(s.e.)	(0.673)	(1.106)	(0.512)	(0.466)	(0.629)	(0.995)	(0.333)	(0.547)	(0.973)	(0.255)	(0.959)	9,923
Secondary GPA												
3.3 or higher	4.63	53.38	3.80	3.40	6.60	19.75	2.09	3.13	17.33	0.23	29.99	
(s.e.)	(0.622)	(2.027)	(0.520)	(0.777)	(0.805)	(1.206)	(0.397)	(0.478)	(1.111)	(0.128)	(2.080)	2,238
2.6 to less than 3.3	8.89	57.45	6.81	3.36	10.87	28.26	3.40	6.28	24.76	0.42	24.26	
(s.e.)	(0.987)	(1.670)	(0.575)	(0.472)	(0.968)	(1.301)	(0.462)	(0.554)	(1.277)	(0.109)	(1.342)	3,936
1.6 to less than 2.6	11.86	55.69	10.88	4.59	13.10	43.25	6.86	13.55	35.60	1.72	20.81	
(s.e.)	(0.943)	(1.462)	(0.885)	(0.581)	(0.892)	(1.430)	(0.539)	(0.925)	(1.412)	(0.449)	(1.126)	4,928
Less than 1.6	13.03	51.89	12.39	4.32	12.06	50.28	12.60	13.92	39.13	1.95	14.01	
(s.e.)	(1.910)	(3.293)	(2.717)	(1.095)	(1.771)	(3.416)	(2.687)	(1.897)	(3.236)	(0.641)	(1.685)	600

Table 17—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected special populations characteristics—Continued

						Trade & Industry						
Special populations characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & Communications	Unweighted Ns
Remedial Carnegie units accumulated[4]												
Zero	8.76	56.57	8.21	3.97	9.62	32.04	4.30	7.76	27.18	0.79	24.84	
(s.e.)	(0.662)	(1.121)	(0.528)	(0.487)	(0.623)	(0.936)	(0.388)	(0.465)	(0.906)	(0.209)	(1.020)	9,589
0.01-0.99	7.20	54.35	13.48	3.17	16.50	41.24	5.08	13.87	37.09	2.26	16.03	
(s.e.)	(1.468)	(6.275)	(4.090)	(0.904)	(3.092)	(6.118)	(1.073)	(3.463)	(6.054)	(0.806)	(2.639)	542
1.00-1.99	12.20	55.90	7.52	4.45	17.57	45.48	8.32	16.56	38.68	1.18	18.53	
(s.e.)	(1.627)	(2.408)	(1.081)	(1.004)	(2.015)	(2.438)	(1.172)	(1.838)	(2.476)	(0.353)	(2.021)	972
2.00-2.99	25.92	52.90	8.69	3.63	11.24	50.63	14.62	14.23	32.21	7.52	19.20	
(s.e.)	(7.109)	(5.867)	(1.824)	(1.070)	(2.761)	(6.038)	(2.641)	(2.749)	(4.561)	(5.040)	(7.312)	277
3.00-3.99	15.23	40.97	9.62	5.25	16.04	55.78	12.02	21.72	43.75	0.51	6.32	
(s.e.)	(3.720)	(5.996)	(2.998)	(2.163)	(4.278)	(5.747)	(3.806)	(4.702)	(6.242)	(0.506)	(2.191)	139
4.00 or more	23.67	32.70	5.49	4.92	30.72	49.42	17.21	19.44	33.28	0.00	6.56	
(s.e.)	(4.622)	(4.901)	(1.723)	(1.993)	(4.725)	(5.039)	(3.729)	(3.675)	(4.846)	(0.000)	(1.707)	188
Student parent status												
Parent	5.94	68.80	8.39	5.08	27.73	22.35	4.48	7.61	17.93	0.00	13.37	
(s.e.)	(1.471)	(5.333)	(2.544)	(1.450)	(5.334)	(3.822)	(1.257)	(1.801)	(3.455)	(0.000)	(2.758)	242
Nonparent	9.62	55.70	8.42	3.90	10.37	34.53	4.92	8.84	29.10	1.09	23.35	
(s.e.)	(0.678)	(1.110)	(0.548)	(0.435)	(0.628)	(0.977)	(0.378)	(0.514)	(0.963)	(0.247)	(0.965)	10,784
Expecting	10.87	58.93	10.08	4.31	17.08	39.80	11.04	18.99	31.79	2.08	20.42	
(s.e.)	(3.287)	(5.834)	(3.213)	(1.863)	(4.354)	(5.526)	(3.105)	(4.436)	(5.228)	(1.588)	(5.052)	137

First row, first column reads: Of all 1992 public high school graduates, 9.74 percent completed one or more courses in agriculture.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one vocational program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 18—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected school characteristics

						Trade & industry						
School characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & communications	Unweighted Ns
Total*	9.74	55.65	8.44	3.99	11.21	34.83	5.29	9.43	29.20	1.06	23.06	
(s.e.)	(0.654)	(1.039)	(0.521)	(0.440)	(0.626)	(0.909)	(0.381)	(0.515)	(0.885)	(0.223)	(0.904)	11,707
School size												
1-500	23.81	64.53	4.84	5.29	9.34	36.45	7.69	10.93	30.34	0.77	28.91	
(s.e.)	(2.686)	(3.024)	(1.167)	(1.662)	(1.662)	(2.679)	(1.486)	(1.509)	(2.679)	(0.479)	(3.030)	1,571
501-1,000	11.07	58.13	7.32	3.34	10.26	36.40	5.42	8.85	30.25	1.38	23.94	
(s.e.)	(1.313)	(1.778)	(1.056)	(0.856)	(1.132)	(1.421)	(0.635)	(0.815)	(1.501)	(0.618)	(1.822)	2,844
1,001-1,500	7.85	53.05	9.46	4.25	11.08	33.97	5.09	9.03	28.08	1.27	19.91	
(s.e.)	(1.183)	(1.870)	(0.896)	(0.906)	(1.123)	(1.670)	(0.713)	(1.123)	(1.568)	(0.614)	(1.250)	2,919
1,501 or more	4.45	49.42	11.20	3.72	12.41	32.40	3.83	10.01	27.58	1.03	22.69	
(s.e.)	(0.605)	(1.589)	(0.986)	(0.586)	(1.270)	(1.592)	(0.558)	(1.003)	(1.546)	(0.231)	(1.671)	2,978
Urbanicity												
Urban	5.10	52.42	8.83	4.68	10.18	32.31	4.22	7.38	27.13	1.56	28.23	
(s.e.)	(1.303)	(1.915)	(1.060)	(0.966)	(1.254)	(1.824)	(0.797)	(0.927)	(1.706)	(0.672)	(2.043)	2,377
Suburban	6.18	55.12	9.15	3.09	10.98	34.32	4.78	9.18	29.22	0.78	21.12	
(s.e.)	(0.745)	(1.801)	(0.854)	(0.625)	(1.050)	(1.514)	(0.562)	(0.837)	(1.441)	(0.190)	(1.285)	4,972
Rural	17.12	59.52	7.12	4.68	11.75	36.50	6.55	10.44	29.92	1.14	22.89	
(s.e.)	(1.365)	(1.553)	(0.847)	(0.807)	(0.964)	(1.405)	(0.686)	(0.825)	(1.494)	(0.442)	(1.609)	4,268
Absentee rate												
0-5%	15.17	55.36	9.78	4.02	11.09	33.27	5.05	9.07	28.53	1.09	20.72	
(s.e.)	(1.562)	(1.723)	(1.068)	(0.836)	(1.063)	(1.520)	(0.683)	(0.797)	(1.580)	(0.309)	(1.410)	3,538
6-10%	7.76	56.07	7.83	4.48	10.02	35.15	5.45	8.62	29.50	0.75	24.12	
(s.e.)	(0.931)	(1.522)	(0.678)	(0.815)	(0.923)	(1.309)	(0.616)	(0.826)	(1.325)	(0.200)	(1.280)	4,379
11% or more	9.75	56.33	9.70	4.33	10.51	38.25	5.94	13.66	34.22	0.88	28.53	
(s.e.)	(2.203)	(3.375)	(2.080)	(1.154)	(2.275)	(3.230)	(1.272)	(2.414)	(3.070)	(0.448)	(3.708)	833
Percent of students receiving free or reduced-price lunch												
0-5%	7.58	51.07	9.99	2.29	10.48	34.61	3.59	9.14	30.89	0.79	23.99	
(s.e.)	(1.436)	(2.147)	(1.035)	(0.566)	(1.323)	(1.945)	(0.554)	(1.328)	(1.930)	(0.268)	(1.919)	2,568
6-10%	9.22	55.69	7.60	3.75	11.70	34.26	4.34	9.62	29.79	1.29	21.17	
(s.e.)	(1.762)	(2.528)	(1.157)	(0.878)	(1.826)	(2.221)	(0.952)	(1.349)	(2.214)	(0.550)	(1.788)	1,551
11-20%	12.84	56.69	11.21	4.08	9.84	35.44	5.84	10.12	29.37	0.64	24.02	
(s.e.)	(1.667)	(2.087)	(1.470)	(1.051)	(1.218)	(1.619)	(0.822)	(1.063)	(1.661)	(0.205)	(1.909)	2,146
21% or more	11.85	58.11	6.57	4.81	11.08	34.38	6.57	8.99	27.37	1.35	22.63	
(s.e.)	(1.221)	(1.527)	(0.756)	(0.893)	(1.045)	(1.522)	(0.840)	(0.883)	(1.441)	(0.545)	(1.625)	3,468

Table 18—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation programs, by selected school characteristics—Continued

School characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transportation		
Percent of students taking remedial reading												
0%	13.97	51.38	8.05	2.95	9.03	35.31	4.23	8.55	29.24	1.58	25.89	
(s.e.)	(2.265)	(2.421)	(1.219)	(0.655)	(1.158)	(2.351)	(0.713)	(1.156)	(2.298)	(0.973)	(2.673)	1,713
1-5%	8.11	54.28	9.80	3.04	11.17	34.59	4.66	8.63	30.43	0.80	22.89	
(s.e.)	(1.153)	(1.807)	(0.905)	(0.587)	(1.065)	(1.513)	(0.599)	(0.897)	(1.537)	(0.230)	(1.421)	3,523
6-10%	12.28	58.94	7.52	7.19	10.27	35.00	5.66	10.60	27.70	1.54	21.93	
(s.e.)	(1.455)	(2.012)	(1.003)	(1.590)	(1.211)	(1.712)	(0.759)	(1.091)	(1.655)	(0.762)	(1.796)	2,461
11% or more	8.27	56.13	8.97	3.45	13.01	35.22	6.59	10.76	28.84	1.16	22.99	
(s.e.)	(1.209)	(1.969)	(1.121)	(0.662)	(1.585)	(1.721)	(1.051)	(1.240)	(1.702)	(0.396)	(1.965)	2,231
Percent of students in special education												
0%	5.09	34.06	6.20	1.14	4.43	22.16	2.44	1.44	19.86	0.00	34.38	
(s.e.)	(2.174)	(8.159)	(3.266)	(0.547)	(2.652)	(7.844)	(1.632)	(1.083)	(7.172)	(0.000)	(12.818)	95
1-5%	10.68	56.73	8.34	6.22	8.85	34.57	4.62	8.63	30.42	0.22	22.67	
(s.e.)	(1.795)	(2.126)	(1.016)	(1.435)	(1.266)	(1.908)	(0.864)	(0.985)	(1.871)	(0.087)	(1.802)	2,452
6-10%	11.45	56.63	9.64	3.19	11.83	35.91	5.79	9.84	30.10	1.38	24.54	
(s.e.)	(1.167)	(1.542)	(0.934)	(0.564)	(1.026)	(1.329)	(0.650)	(1.021)	(1.381)	(0.316)	(1.418)	4,018
11% or more	9.45	55.48	6.68	3.83	9.97	35.49	5.41	10.33	30.33	0.95	20.93	
(s.e.)	(1.264)	(2.272)	(0.901)	(0.935)	(1.139)	(1.930)	(0.752)	(1.175)	(1.997)	(0.319)	(1.640)	2,089

First row, first column reads: Of all 1992 public high school graduates, 9.74 percent completed one or more courses in agriculture.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may sum to greater than 100 percent because students may have completed courses in more than one vocational program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 19—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected student characteristics

						Trade & industry						
Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & communications	Unweighted Ns
Total[1]	0.19	0.85	0.13	0.06	0.18	0.79	0.11	0.17	0.51	0.01	0.22	
(s.e.)	(0.015)	(0.022)	(0.009)	(0.007)	(0.015)	(0.029)	(0.013)	(0.013)	(0.020)	(0.002)	(0.011)	11,707
Sex												
Male	0.30	0.59	0.13	0.02	0.07	1.36	0.19	0.32	0.84	0.01	0.26	
(s.e.)	(0.027)	(0.023)	(0.013)	(0.003)	(0.010)	(0.052)	(0.017)	(0.027)	(0.034)	(0.003)	(0.015)	5,760
Female	0.08	1.10	0.13	0.10	0.28	0.23	0.03	0.01	0.19	0.00	0.19	
(s.e.)	(0.008)	(0.036)	(0.012)	(0.012)	(0.026)	(0.029)	(0.020)	(0.002)	(0.020)	(0.001)	(0.011)	5,917
Race–ethnicity												
White, non-Hispanic	0.22	0.84	0.13	0.05	0.15	0.80	0.11	0.17	0.51	0.01	0.22	
(s.e.)	(0.018)	(0.026)	(0.011)	(0.006)	(0.017)	(0.036)	(0.017)	(0.016)	(0.023)	(0.002)	(0.012)	8,269
Black, non-Hispanic	0.12	0.93	0.14	0.08	0.35	0.61	0.13	0.09	0.38	0.01	0.20	
(s.e.)	(0.023)	(0.052)	(0.027)	(0.026)	(0.062)	(0.060)	(0.022)	(0.017)	(0.051)	(0.004)	(0.031)	1,023
Hispanic	0.09	0.92	0.13	0.09	0.21	0.71	0.08	0.15	0.47	0.02	0.26	
(s.e.)	(0.014)	(0.064)	(0.021)	(0.032)	(0.040)	(0.057)	(0.020)	(0.026)	(0.043)	(0.014)	(0.035)	1,365
Asian	0.03	0.85	0.07	0.07	0.06	0.88	0.07	0.15	0.66	0.00	0.26	
(s.e.)	(0.011)	(0.159)	(0.014)	(0.030)	(0.012)	(0.178)	(0.030)	(0.040)	(0.169)	(0.000)	(0.034)	855
Native American	0.20	0.75	0.10	0.06	0.35	1.73	0.17	0.40	1.16	0.00	0.12	
(s.e.)	(0.088)	(0.097)	(0.042)	(0.027)	(0.123)	(0.344)	(0.055)	(0.133)	(0.332)	(0.003)	(0.039)	118
Total vocational Carnegie units accumulated												
0.00–1.99	0.01	0.24	0.01	0.01	0.02	0.09	0.00	0.01	0.08	0.00	0.11	
(s.e.)	(0.002)	(0.014)	(0.002)	(0.002)	(0.003)	(0.014)	(0.000)	(0.001)	(0.014)	(0.000)	(0.010)	3,127
2.00–3.99	0.06	0.70	0.09	0.03	0.08	0.43	0.02	0.05	0.34	0.01	0.25	
(s.e.)	(0.009)	(0.024)	(0.013)	(0.004)	(0.010)	(0.025)	(0.004)	(0.006)	(0.023)	(0.002)	(0.017)	3,587
4.00–5.99	0.22	1.17	0.20	0.09	0.19	0.89	0.08	0.17	0.63	0.01	0.25	
(s.e.)	(0.026)	(0.042)	(0.023)	(0.018)	(0.028)	(0.040)	(0.011)	(0.017)	(0.032)	(0.002)	(0.019)	2,565
6.00–7.99	0.42	1.39	0.29	0.10	0.40	1.56	0.20	0.36	0.97	0.03	0.28	
(s.e.)	(0.051)	(0.060)	(0.040)	(0.018)	(0.049)	(0.082)	(0.029)	(0.034)	(0.073)	(0.012)	(0.024)	1,469
8.00 or more	0.83	1.60	0.21	0.18	0.68	2.88	0.63	0.78	1.46	0.01	0.31	
(s.e.)	(0.091)	(0.126)	(0.027)	(0.043)	(0.119)	(0.201)	(0.131)	(0.116)	(0.127)	(0.004)	(0.038)	959

Table 19—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected student characteristics—Continued

						Trade & industry						
Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & communications	Unweighted Ns
Total specific labor market preparation Carnegie units accumulated												
Zero	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
(s.e.)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	1,598
0.01–0.99	0.01	0.27	0.01	0.01	0.04	0.07	0.01	0.01	0.05	0.00	0.08	
(s.e.)	(0.003)	(0.020)	(0.003)	(0.003)	(0.008)	(0.012)	(0.008)	(0.002)	(0.009)	(0.000)	(0.011)	1,131
1.00–1.99	0.04	0.62	0.03	0.02	0.05	0.21	0.01	0.02	0.17	0.00	0.21	
(s.e.)	(0.005)	(0.021)	(0.005)	(0.003)	(0.005)	(0.017)	(0.002)	(0.004)	(0.017)	(0.000)	(0.015)	2,639
2.00–2.99	0.12	0.92	0.12	0.04	0.12	0.55	0.03	0.06	0.45	0.01	0.27	
(s.e.)	(0.028)	(0.038)	(0.021)	(0.009)	(0.013)	(0.037)	(0.005)	(0.009)	(0.036)	(0.002)	(0.020)	1,998
3.00–3.99	0.19	1.20	0.20	0.07	0.21	0.88	0.07	0.13	0.66	0.01	0.33	
(s.e.)	(0.024)	(0.045)	(0.030)	(0.013)	(0.025)	(0.045)	(0.012)	(0.014)	(0.042)	(0.004)	(0.026)	1,475
4.00 or more	0.56	1.51	0.30	0.15	0.47	2.15	0.36	0.53	1.24	0.02	0.31	
(s.e.)	(0.049)	(0.059)	(0.028)	(0.023)	(0.052)	(0.092)	(0.051)	(0.049)	(0.063)	(0.006)	(0.024)	2,886
Area of specialization[3]												
College prep	0.04	0.68	0.05	0.04	0.05	0.31	0.01	0.03	0.27	0.00	0.27	
(s.e.)	(0.007)	(0.037)	(0.007)	(0.008)	(0.008)	(0.019)	(0.003)	(0.003)	(0.017)	(0.001)	(0.018)	3,951
Vocational	0.59	1.36	0.42	0.16	0.51	3.42	0.70	0.93	1.78	0.01	0.25	
(s.e.)	(0.082)	(0.113)	(0.062)	(0.043)	(0.066)	(0.202)	(0.146)	(0.118)	(0.140)	(0.004)	(0.034)	902
Other	0.22	0.87	0.13	0.06	0.21	0.72	0.08	0.14	0.48	0.01	0.19	
(s.e.)	(0.019)	(0.025)	(0.011)	(0.008)	(0.022)	(0.027)	(0.008)	(0.011)	(0.022)	(0.003)	(0.011)	6,854

Table 19—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected student characteristics—Continued

Student characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transportation		
Area of vocational program concentration[4]												
None	0.08	0.63	0.08	0.03	0.09	0.34	0.02	0.05	0.27	0.01	0.21	
(s.e.)	(0.008)	(0.016)	(0.007)	(0.006)	(0.006)	(0.014)	(0.002)	(0.004)	(0.012)	(0.002)	(0.011)	8,865
Agriculture	4.37	0.48	0.12	0.01	0.07	0.71	0.16	0.16	0.38	0.01	0.19	
(s.e.)	(0.135)	(0.056)	(0.069)	(0.003)	(0.021)	(0.101)	(0.057)	(0.039)	(0.060)	(0.007)	(0.054)	306
Business & office	0.04	4.08	0.11	0.02	0.09	0.19	0.02	0.02	0.15	0.01	0.25	
(s.e.)	(0.008)	(0.079)	(0.017)	(0.007)	(0.016)	(0.024)	(0.008)	(0.006)	(0.022)	(0.006)	(0.031)	898
Marketing & distribution	0.09	0.42	3.88	0.02	0.10	0.32	0.06	0.05	0.20	0.00	0.08	
(s.e).	(0.032)	(0.061)	(0.119)	(0.008)	(0.029)	(0.058)	(0.026)	(0.025)	(0.042)	(0.003)	(0.023)	159
Health	0.00	0.51	0.03	4.45	0.34	0.06	0.00	0.01	0.05	0.01	0.06	
(s.e.)	(0.005)	(0.089)	(0.018)	(0.329)	(0.149)	(0.029)	(0.000)	(0.007)	(0.024)	(0.007)	(0.021)	79
Occupational home economics	0.14	0.46	0.07	0.00	4.81	0.26	0.00	0.05	0.21	0.00	0.08	
(s.e.)	(0.064)	(0.101)	(0.022)	(0.002)	(0.269)	(0.068)	(0.002)	(0.017)	(0.061)	(0.000)	(0.027)	195
Trade and industry	0.22	0.31	0.07	0.02	0.04	4.99	0.85	1.26	2.85	0.03	0.16	
(s.e.)	(0.025)	(0.028)	(0.030)	(0.005)	(0.010)	(0.115)	(0.122)	(0.109)	(0.108)	(0.008)	(0.018)	1,142
Technical & communications	0.00	0.55	0.03	0.05	0.03	0.76	0.20	0.12	0.44	0.00	3.86	
(s.e.)	(0.000)	(0.092)	(0.022)	(0.037)	(0.021)	(0.135)	(0.097)	(0.092)	(0.118)	(0.000)	(0.160)	63

First row, first column reads: 1992 public high school graduates earned on average 0.19 Carnegie units in agriculture.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Trade and industry estimates may not sum to the "all" column estimates due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 20—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected special populations characteristics

Special populations characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transportation		
Total[1]	0.19	0.85	0.13	0.06	0.18	0.79	0.11	0.17	0.51	0.01	0.22	
(s.e.)	(0.015)	(0.022)	(0.009)	(0.007)	(0.015)	(0.029)	(0.013)	(0.013)	(0.020)	(0.002)	(0.011)	11,707
Socioeconomic status												
Lowest quartile	0.29	1.05	0.17	0.10	0.28	0.93	0.16	0.22	0.55	0.01	0.19	
(s.e.)	(0.030)	0.062)	(0.028)	(0.021)	(0.030)	(0.074)	(0.022)	(0.035)	(0.046)	(0.002)	(0.016)	2,274
Second quartile	0.26	0.96	0.12	0.06	0.22	0.98	0.16	0.21	0.61	0.01	0.22	
(s.e.)	(0.030)	(0.040)	(0.013)	(0.009)	(0.041)	(0.066)	(0.046)	(0.022)	(0.042)	(0.002)	(0.017)	2,846
Third quartile	0.17	0.85	0.14	0.05	0.15	0.74	0.07	0.13	0.53	0.01	0.23	
(s.e.)	(0.018)	(0.035)	(0.018)	(0.011)	(0.020)	(0.046)	(0.010)	(0.013)	(0.041)	(0.006)	(0.016)	3,011
Highest quartile	0.07	0.62	0.09	0.03	0.07	0.44	0.03	0.07	0.34	0.01	0.22	
(s.e.)	(0.011)	(0.028)	(0.012)	(0.006)	(0.008)	(0.029)	(0.005)	(0.009)	(0.025)	(0.002)	(0.016)	3,063
Special needs status[2]												
Special needs	0.24	0.79	0.19	0.06	0.25	1.18	0.17	0.29	0.70	0.01	0.19	
(s.e.)	(0.024)	(0.043)	(0.021)	(0.009)	(0.026)	(0.056)	(0.020)	(0.028)	(0.042)	(0.006)	(0.019)	2,688
No special needs	0.17	0.88	0.11	0.06	0.14	0.63	0.08	0.11	0.44	0.01	0.23	
(s.e.)	(0.016)	(0.024)	(0.008)	(0.008)	(0.017)	(0.032)	(0.017)	(0.011)	(0.022)	(0.002)	(0.011)	8,137
Limited English proficiency status												
Limited English proficient	0.29	0.82	0.07	0.03	0.21	0.92	0.17	0.21	0.54	0.00	0.42	
(s.e.)	(0.103)	(0.101)	(0.018)	(0.016)	(0.073)	(0.148)	(0.074)	(0.084)	(0.087)	(0.002)	(0.164)	225
English proficient	0.19	0.86	0.13	0.06	0.16	0.76	0.10	0.16	0.50	0.01	0.22	
(s.e.)	(0.015)	(0.023)	(0.009)	(0.007)	(0.015)	(0.031)	(0.014)	(0.013)	(0.021)	(0.002)	(0.011)	10,349
Handicap status[3]												
Handicapped	0.33	0.88	0.15	0.07	0.27	1.37	0.20	0.35	0.82	0.01	0.17	
(s.e.)	(0.057)	(0.123)	(0.037)	(0.024)	(0.049)	(0.128)	(0.047)	(0.053)	(0.115)	(0.002)	(0.026)	611
Not handicapped	0.18	0.86	0.12	0.06	0.16	0.72	0.09	0.14	0.48	0.01	0.23	
(s.e.)	(0.015)	(0.023)	(0.009)	(0.007)	(0.015)	(0.030)	(0.014)	(0.012)	(0.021)	(0.002)	(0.012)	9,923
Secondary GPA												
3.3 or higher	0.10	0.72	0.06	0.03	0.06	0.33	0.04	0.04	0.25	0.00	0.28	
(s.e.)	(0.016)	(0.032)	(0.010)	(0.008)	(0.009)	(0.031)	(0.012)	(0.010)	(0.022)	(0.001)	(0.019)	2,238
2.6 to less than 3.3	0.18	0.89	0.10	0.05	0.18	0.58	0.08	0.10	0.40	0.00	0.23	
(s.e.)	(0.022)	(0.038)	(0.011)	(0.009)	(0.033)	(0.045)	(0.032)	(0.013)	(0.028)	(0.001)	(0.015)	3,936
1.6 to less than 2.6	0.24	0.87	0.17	0.08	0.22	1.06	0.13	0.25	0.66	0.01	0.20	
(s.e.)	(0.020)	(0.032)	(0.015)	(0.012)	(0.019)	(0.047)	(0.013)	(0.022)	(0.034)	(0.004)	(0.014)	4,928
Less than 1.6	0.24	0.81	0.21	0.05	0.25	1.28	0.23	0.28	0.75	0.01	0.12	
(s.e.)	(0.043)	(0.089)	(0.059)	(0.013)	(0.059)	(0.126)	(0.044)	(0.064)	(0.106)	(0.003)	(0.018)	600

Table 20—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected special populations characteristics—Continued

						Trade & industry						
Special populations characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transportation	Technical & communications	Unweighted Ns
Remedial Carnegie units accumulated[4]												
Zero*	0.17	0.87	0.13	0.06	0.14	0.69	0.08	0.14	0.46	0.01	0.24	
(s.e.)	(0.015)	(0.026)	(0.009)	(0.007)	(0.015)	(0.030)	(0.015)	(0.013)	(0.021)	(0.001)	(0.012)	9,589
0.01–0.99	0.14	0.76	0.21	0.06	0.27	0.87	0.07	0.22	0.57	0.02	0.14	
(s.e.)	(0.042)	(0.107)	(0.077)	(0.022)	(0.062)	(0.117)	(0.020)	(0.060)	(0.076)	(0.005)	(0.025)	542
1.00–1.99	0.29	0.86	0.11	0.05	0.31	1.21	0.17	0.27	0.76	0.01	0.17	
(s.e.)	(0.056)	(0.058)	(0.018)	(0.010)	(0.038)	(0.108)	(0.030)	(0.035)	(0.094)	(0.003)	(0.025)	972
2.00–2.99	0.37	0.63	0.12	0.08	0.29	1.37	0.29	0.34	0.66	0.07	0.19	
(s.e.)	(0.071)	(0.080)	(0.029)	(0.033)	(0.110)	(0.173)	(0.062)	(0.089)	(0.122)	(0.050)	(0.075)	277
3.00–3.99	0.37	0.55	0.09	0.12	0.43	1.57	0.31	0.47	0.78	0.00	0.09	
(s.e.)	(0.107)	(0.105)	(0.027)	(0.091)	(0.208)	(0.243)	(0.135)	(0.127)	(0.153)	(0.003)	(0.046)	139
4.00 or more	0.53	0.46	0.12	0.13	0.69	1.85	0.53	0.42	0.90	0.00	0.07	
(s.e.)	(0.126)	(0.083)	(0.046)	(0.078)	(0.136)	(0.279)	(0.146)	(0.103)	(0.227)	(0.000)	(0.018)	188
Student parent status												
Parent	0.09	1.00	0.11	0.09	0.84	0.42	0.08	0.11	0.23	0.00	0.10	
(s.e.)	(0.028)	(0.109)	(0.043)	(0.035)	(0.381)	(0.083)	(0.029)	(0.041)	(0.048)	(0.000)	(0.025)	242
Nonparent	0.19	0.85	0.13	0.05	0.15	0.77	0.10	0.15	0.51	0.01	0.22	
(s.e.)	(0.016)	(0.024)	(0.010)	(0.006)	(0.012)	(0.031)	(0.014)	(0.012)	(0.022)	(0.002)	(0.011)	10,784
Expecting	0.21	1.11	0.15	0.07	0.38	0.95	0.20	0.27	0.47	0.01	0.15	
(s.e.)	(0.083)	(0.225)	(0.049)	(0.042)	(0.149)	(0.159)	(0.073)	(0.068)	(0.096)	(0:008)	(0.044)	137

First row, first column reads: 1992 public high school graduates earned on average 0.19 Carnegie units in agriculture.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Patterns of Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Trade and industry estimates may not sum to the "all" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 21—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected school characteristics

School characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry: All	Trade & industry: Construction	Trade & industry: Mechanics & repairs	Trade & industry: Precision production	Trade & industry: Transportation	Technical & communications	Unweighted Ns
Total*	0.19	0.85	0.13	0.06	0.18	0.79	0.11	0.17	0.51	0.01	0.22	
(s.e.)	(0.015)	(0.022)	(0.009)	(0.007)	(0.015)	(0.029)	(0.013)	(0.013)	(0.020)	(0.002)	(0.011)	11,707
School size												
1-500	0.57	1.06	0.05	0.08	0.13	0.87	0.12	0.19	0.55	0.00	0.25	
(s.e.)	(0.068)	(0.065)	(0.014)	(0.030)	(0.025)	(0.088)	(0.029)	(0.035)	(0.068)	(0.002)	(0.031)	1,571
501-1,000	0.25	0.94	0.11	0.05	0.18	0.85	0.11	0.18	0.54	0.01	0.21	
(s.e.)	(0.036)	(0.046)	(0.017)	(0.012)	(0.027)	(0.046)	(0.017)	(0.020)	(0.035)	(0.004)	(0.018)	2,844
1,001-1,500	0.12	0.81	0.15	0.06	0.17	0.77	0.13	0.14	0.49	0.01	0.20	
(s.e.)	(0.017)	(0.043)	(0.019)	(0.014)	(0.026)	(0.058)	(0.047)	(0.015)	(0.033)	(0.006)	(0.016)	2,919
1,501 or more	0.06	0.72	0.16	0.06	0.20	0.65	0.06	0.14	0.44	0.01	0.22	
(s.e.)	(0.009)	(0.035)	(0.016)	(0.010)	(0.027)	(0.037)	(0.011)	(0.016)	(0.028)	(0.002)	(0.020)	2,978
Urbanicity												
Urban	0.05	0.79	0.16	0.07	0.16	0.71	0.10	0.11	0.49	0.01	0.28	
(s.e.)	(0.009)	(0.051)	(0.023)	(0.020)	(0.023)	(0.072)	(0.049)	(0.014)	(0.051)	(0.006)	(0.025)	2,377
Suburban	0.10	0.79	0.14	0.05	0.17	0.73	0.09	0.15	0.49	0.01	0.20	
(s.e.)	(0.014)	(0.033)	(0.015)	(0.008)	(0.023)	(0.036)	(0.013)	(0.014)	(0.027)	(0.002)	(0.015)	4,972
Rural	0.39	0.98	0.10	0.06	0.20	0.91	0.13	0.22	0.54	0.01	0.21	
(s.e.)	(0.036)	(0.038)	(0.013)	(0.008)	(0.031)	(0.055)	(0.017)	(0.031)	(0.037)	(0.003)	(0.018)	4,268
Absentee rate												
0-5%	0.33	0.85	0.14	0.05	0.16	0.71	0.09	0.14	0.49	0.01	0.19	
(s.e.)	(0.039)	(0.036)	(0.015)	(0.009)	(0.018)	(0.040)	(0.015)	(0.013)	(0.031)	(0.003)	(0.014)	3,538
6-10%		0.15	0.88	0.13	0.08	0.16	0.79	0.12	0.15	0.51	0.01	0.23
(s.e.)	(0.019)	(0.036)	(0.014)	(0.014)	(0.021)	(0.048)	(0.032)	(0.016)	(0.030)	(0.002)	(0.015)	4,379
11% or more	0.17	0.94	0.16	0.06	0.16	0.90	0.09	0.23	0.58	0.01	0.28	
(s.e.)	(0.043)	(0.091)	(0.034)	(0.024)	(0.040)	(0.094)	(0.024)	(0.040)	(0.066)	(0.004)	(0.038)	833
Percent of students receiving free or reduced-price lunch												
0-5%	0.13	0.71	0.14	0.03	0.15	0.70	0.07	0.15	0.46	0.01	0.22	
(s.e.)	(0.027)	(0.042)	(0.018)	(0.006)	(0.027)	(0.046)	(0.015)	(0.018)	(0.035)	(0.003)	(0.019)	2,568
6-10%		0.19	0.89	0.09	0.07	0.20	0.72	0.08	0.13	0.50	0.01	0.18
(s.e.)	(0.036)	(0.060)	(0.015)	(0.025)	(0.029)	(0.051)	(0.019)	(0.017)	(0.042)	(0.004)	(0.015)	1,551
11-20%	0.25	0.90	0.19	0.05	0.12	0.81	0.09	0.14	0.56	0.00	0.22	
(s.e.)	(0.042)	(0.046)	(0.027)	(0.009)	(0.015)	(0.059)	(0.017)	(0.022)	(0.048)	(0.001)	(0.022)	2,146
21% or more	0.27	0.94	0.10	0.08	0.21	0.85	0.16	0.18	0.50	0.01	0.23	
(s.e.)	(0.034)	(0.041)	(0.013)	(0.016)	(0.030)	(0.059)	(0.043)	(0.021)	(0.034)	(0.006)	(0.020)	3,468

Table 21—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation programs, by selected school characteristics—Continued

School characteristics	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & com-munications	Un-weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor-tation		
Percent of students taking remedial reading												
0%	0.29	0.80	0.14	0.05	0.15	0.67	0.08	0.12	0.46	0.01	0.25	
(s.e.)	(0.048)	(0.052)	(0.025)	(0.013)	(0.026)	(0.052)	(0.016)	(0.019)	(0.040)	(0.007)	(0.027)	1,713
1-5%	0.14	0.81	0.13	0.04	0.14	0.75	0.08	0.14	0.52	0.01	0.21	
(s.e.)	(0.021)	(0.040)	(0.013)	(0.007)	(0.015)	(0.038)	(0.013)	(0.014)	(0.030)	(0.002)	(0.014)	3,523
6-10%		0.26	0.97	0.11	0.10	0.17	0.77	0.10	0.18	0.47	0.01	0.21
(s.e.)	(0.041)	(0.054)	(0.016)	(0.025)	(0.028)	(0.053)	(0.016)	(0.026)	(0.039)	(0.007)	(0.021)	2,461
11% or more	0.18	0.88	0.13	0.07	0.25	0.93	0.18	0.19	0.55	0.01	0.23	
(s.e.)	(0.035)	(0.044)	(0.021)	(0.014)	(0.040)	(0.079)	(0.060)	(0.021)	(0.050)	(0.004)	(0.024)	2,231
Percent of students in special education												
0%	0.06	0.55	0.09	0.01	0.04	0.74	0.02	0.03	0.70	0.00	0.23	
(s.e.)	(0.026)	(0.182)	(0.057)	(0.004)	(0.021)	(0.390)	(0.012)	(0.024)	(0.386)	(0.000)	(0.054)	95
1-5%	0.19	0.90	0.12	0.09	0.13	0.79	0.13	0.14	0.51	0.00	0.22	
(s.e.)	(0.032)	(0.052)	(0.017)	(0.022)	(0.023)	(0.071)	(0.057)	(0.018)	(0.037)	(0.001)	(0.021)	2,452
6-10%		0.24	0.87	0.16	0.05	0.17	0.78	0.10	0.17	0.50	0.01	0.23
(s.e.)	(0.030)	(0.032)	(0.017)	(0.008)	(0.016)	(0.040)	(0.014)	(0.019)	(0.029)	(0.003)	(0.017)	4,018
11% or more	0.21	0.88	0.10	0.06	0.20	0.79	0.10	0.16	0.52	0.01	0.19	
(s.e.)	(0.035)	(0.054)	(0.015)	(0.019)	(0.038)	(0.053)	(0.019)	(0.018)	(0.042)	(0.002)	(0.015)	2,089

First row, first column reads: 1992 public high school graduates earned on average 0.19 Carnegie units in agriculture.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Trade and industry estimates may not sum to the "all" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 22—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected student characteristics

							Trade & industry					
Student characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Technical & communications	Unweighted Ns
Total[1]	0.15	0.01	0.04	0.04	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.013)	(0.002)	(0.006)	(0.005)	(0.003)	(0.005)	(0.009)	(0.008)	(0.000)	(0.004)	(0.000)	11,707
Sex												
Male	0.11	0.01	0.01	0.04	0.00	0.01	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.014)	(0.004)	(0.003)	(0.009)	(0.001)	(0.005)	(0.007)	(0.001)	(0.002)	(0.006)	(0.000)	5,760
Female	0.19	0.00	0.07	0.03	0.02	0.03	0.03	0.02	0.00	0.01	0.00	
(s.e.)	(0.022)	(0.000)	(0.011)	(0.005)	(0.005)	(0.005)	(0.017)	(0.016)	(0.000)	(0.004)	(0.000)	5,917
Race–ethnicity												
White, non-Hispanic	0.14	0.01	0.04	0.04	0.01	0.01	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.016)	(0.003)	(0.005)	(0.007)	(0.002)	(0.003)	(0.012)	(0.011)	(0.001)	(0.004)	(0.000)	8,269
Black, non-Hispanic	0.16	0.00	0.06	0.03	0.02	0.02	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.031)	(0.000)	(0.019)	(0.008)	(0.011)	(0.008)	(0.018)	(0.002)	(0.000)	(0.018)	(0.000)	1,023
Hispanic	0.21	0.01	0.08	0.04	0.01	0.06	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.048)	(0.004)	(0.038)	(0.008)	(0.006)	(0.037)	(0.004)	(0.000)	(0.001)	(0.004)	(0.000)	1,365
Asian	0.07	0.00	0.03	0.01	0.02	0.00	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.018)	(0.000)	(0.010)	(0.004)	(0.013)	(0.002)	(0.004)	(0.003)	(0.000)	(0.003)	(0.000)	855
Native American	0.07	0.00	0.04	0.00	0.02	0.00	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.045)	(0.000)	(0.039)	(0.000)	(0.019)	(0.000)	(0.010)	(0.004)	(0.000)	(0.009)	(0.000)	118
Total vocational Carnegie units accumulated												
0.00–1.99	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.002)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	3,127
2.00–3.99	0.06	0.00	0.01	0.02	0.00	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.013)	(0.001)	(0.001)	(0.011)	(0.001)	(0.006)	(0.004)	(0.000)	(0.000)	(0.004)	(0.000)	3,587
4.00–5.99	0.16	0.01	0.04	0.05	0.02	0.02	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.016)	(0.005)	(0.008)	(0.007)	(0.005)	(0.006)	(0.005)	(0.001)	(0.000)	(0.004)	(0.000)	2,565
6.00–7.99	0.36	0.02	0.14	0.10	0.02	0.05	0.04	0.00	0.00	0.04	0.00	
(s.e.)	(0.047)	(0.005)	(0.032)	(0.023)	(0.007)	(0.029)	(0.009)	(0.000)	(0.003)	(0.009)	(0.000)	1,469
8.00 or more	0.57	0.02	0.15	0.07	0.06	0.05	0.22	0.11	0.01	0.10	0.00	
(s.e.)	(0.108)	(0.007)	(0.036)	(0.014)	(0.022)	(0.014)	(0.100)	(0.096)	(0.007)	(0.035)	(0.000)	959

Table 22—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected student characteristics—Continued

							Trade & industry					
Student characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Technical & communications	Unweighted Ns
Total specific labor market preparation Carnegie units accumulated												
Zero	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
(s.e.)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	1,598
0.01–0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	1,131
1.00–1.99	0.02	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.004)	(0.000)	(0.001)	(0.000)	(0.000)	(0.003)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)	2,639
2.00–2.99	0.08	0.00	0.01	0.04	0.00	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.021)	(0.001)	(0.003)	(0.020)	(0.002)	(0.003)	(0.006)	(0.000)	(0.000)	(0.006)	(0.000)	1,998
3.00–3.99	0.15	0.01	0.04	0.04	0.02	0.03	0.02	0.00	0.00	0.01	0.00	
(s.e.)	(0.020)	(0.005)	(0.009)	(0.006)	(0.008)	(0.013)	(0.005)	(0.002)	(0.000)	(0.005)	(0.000)	1,475
4.00 or more	0.45	0.02	0.13	0.10	0.04	0.05	0.10	0.04	0.01	0.06	0.00	
(s.e.)	(0.047)	(0.006)	(0.021)	(0.014)	(0.009)	(0.016)	(0.035)	(0.033)	(0.003)	(0.014)	(0.000)	2,866
Area of specialization[3]												
College prep	0.04	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.007)	(0.001)	(0.002)	(0.003)	(0.002)	(0.005)	(0.001)	(0.000)	(0.000)	(0.001)	(0.000)	3,951
Vocational	1.06	0.04	0.36	0.21	0.08	0.10	0.28	0.12	0.02	0.14	0.00	
(s.e.)	(0.125)	(0.010)	(0.064)	(0.040)	(0.026)	(0.028)	(0.111)	(0.105)	(0.009)	(0.041)	(0.000)	902
Other	0.09	0.01	0.02	0.03	0.01	0.02	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.010)	(0.002)	(0.003)	(0.006)	(0.002)	(0.005)	(0.003)	(0.000)	(0.000)	(0.003)	(0.000)	6,854

Table 22—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected student characteristics—Continued

							Trade & industry					
Student characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Con- struction	Mechanics & repairs	Precision production	Technical & com- munications	Un- weighted Ns
Area of vocational program concentration[4]												
None	0.04	0.00	0.01	0.02	0.00	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.006)	(0.000)	(0.002)	(0.005)	(0.001)	(0.003)	(0.002)	(0.000)	(0.000)	(0.002)	(0.000)	8,865
Agriculture	0.21	0.16	0.00	0.01	0.00	0.02	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.054)	(0.048)	(0.003)	(0.006)	(0.001)	(0.011)	(0.008)	(0.000)	(0.003)	(0.005)	(0.000)	306
Business & office	0.50	0.00	0.47	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.071)	(0.002)	(0.070)	(0.005)	(0.005)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	898
Marketing & distribution	1.65	0.01	0.02	1.61	0.00	0.02	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.225)	(0.006)	(0.012)	(0.223)	(0.000)	(0.013)	(0.007)	(0.000)	(0.000)	(0.007)	(0.000)	159
Health	1.42	0.00	0.00	0.00	1.41	0.01	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.305)	(0.000)	(0.000)	(0.003)	(0.305)	(0.005)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	79
Occupational home economics	0.64	0.00	0.00	0.01	0.00	0.58	0.05	0.00	0.00	0.05	0.00	
(s.e.)	(0.171)	(0.000)	(0.000)	(0.010)	(0.000)	(0.165)	(0.034)	(0.000)	(0.000)	(0.034)	(0.000)	195
Trade & industry	0.29	0.01	0.00	0.02	0.00	0.00	0.25	0.10	0.02	0.14	0.00	
(s.e.)	(0.090)	(0.006)	(0.000)	(0.018)	(0.001)	(0.001)	(0.088)	(0.083)	(0.007)	(0.034)	(0.000)	1,142
Technical & communications	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	636

First row, first column reads: 1992 public high school graduates earned on average a total of 0.15 Carnegie units in cooperative education and work experience courses.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 23—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected special populations characteristics

Special populations characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry: All	Trade & industry: Construction	Trade & industry: Mechanics & repairs	Trade & industry: Precision production	Technical & communications	Unweighted Ns
Total[1]	0.15	0.01	0.04	0.04	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.013)	(0.002)	(0.006)	(0.005)	(0.003)	(0.005)	(0.009)	(0.008)	(0.000)	(0.004)	(0.000)	11,707
Socioeconomic status												
Lowest quartile	0.20	0.02	0.05	0.05	0.02	0.04	0.03	0.0	0.00	0.03	0.00	
(s.e.)	(0.030)	(0.005)	(0.011)	(0.019)	(0.006)	(0.014)	(0.012)	(0.000)	(0.002)	(0.012)	(0.000)	2,274
Second quartile	0.17	0.01	0.05	0.03	0.01	0.01	0.06	0.04	0.00	0.02	0.00	
(s.e.)	(0.038)	(0.003)	(0.011)	(0.006)	(0.004)	(0.003)	(0.035)	(0.035)	(0.000)	(0.006)	(0.000)	2,846
Third quartile	0.15	0.00	0.04	0.04	0.01	0.03	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.017)	(0.002)	(0.007)	(0.011)	(0.005)	(0.009)	(0.005)	(0.001)	(0.001)	(0.004)	(0.000)	3,011
Highest quartile	0.07	0.00	0.02	0.03	0.01	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.010)	(0.002)	(0.004)	(0.006)	(0.003)	(0.003)	(0.005)	(0.000)	(0.000)	(0.005)	(0.000)	3,063
Special needs status[2]												
Special needs	0.18	0.01	0.03	0.05	0.01	0.04	0.04	0.00	0.00	0.03	0.00	
(s.e.)	(0.021)	(0.003)	(0.007)	(0.009)	(0.003)	(0.015)	(0.009)	(0.001)	(0.003)	(0.009)	(0.000)	2,688
No special needs	0.13	0.01	0.04	0.03	0.01	0.01	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.016)	(0.002)	(0.006)	(0.003)	(0.003)	(0.003)	(0.013)	(0.012)	(0.000)	(0.004)	(0.000)	8,137
Limited English proficiency status												
Limited English proficient	0.17	0.02	0.08	0.02	0.02	0.01	0.02	0.00	0.01	0.01	0.00	
(s.e.)	(0.048)	(0.017)	(0.038)	(0.009)	(0.015)	(0.009)	(0.010)	(0.000)	(0.009)	(0.005)	(0.000)	225
English proficient	0.14	0.01	0.04	0.03	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.013)	(0.002)	(0.005)	(0.004)	(0.003)	(0.003)	(0.010)	(0.010)	(0.000)	(0.004)	(0.000)	10,349

Table 23—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected special populations characteristics—Continued

Special populations characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational Home Economics	Trade & Industry				Technical & Communications	Unweighted Ns
							All	Construction	Mechanics & repairs	Precision production		
Handicap status[3]												
Handicapped	0.18	0.01	0.03	0.07	0.01	0.03	0.02	0.00	0.01	0.01	0.00	
(s.e.)	(0.040)	(0.006)	(0.009)	(0.034)	(0.006)	(0.014)	(0.007)	(0.000)	(0.005)	(0.005)	(0.000)	611
Not handicapped	0.13	0.01	0.04	0.03	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.013)	(0.002)	(0.005)	(0.003)	(0.003)	(0.004)	(0.011)	(0.010)	(0.000)	(0.004)	(0.000)	9,923
Secondary GPA												
3.3 or higher	0.06	0.00	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.008)	(0.001)	(0.005)	(0.005)	(0.003)	(0.002)	(0.002)	(0.000)	(0.000)	(0.001)	(0.000)	2,238
2.6 to less than 3.3	0.14	0.01	0.04	0.02	0.01	0.02	0.04	0.03	0.00	0.01	0.00	
(s.e.)	(0.027)	(0.002)	(0.008)	(0.005)	(0.003)	(0.005)	(0.025)	(0.025)	(0.000)	(0.003)	(0.000)	3,936
1.6 to less than 2.6	0.18	0.01	0.05	0.05	0.02	0.02	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.018)	(0.003)	(0.010)	(0.011)	(0.005)	(0.006)	(0.007)	(0.000)	(0.001)	(0.007)	(0.000)	4,928
Less than 1.6	0.19	0.00	0.03	0.05	0.01	0.05	0.05	0.00	0.01	0.04	0.00	
(s.e.)	(0.040)	(0.001)	(0.015)	(0.015)	(0.006)	(0.025)	(0.024)	(0.004)	(0.010)	(0.022)	(0.000)	600

Table 23—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected special populations characteristics—Continued

Special populations characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational Home Economics	Trade & Industry				Technical & Communications	Unweighted Ns
							All	Construction	Mechanics & repairs	Precision production		
Remedial Carnegie units accumulated[4]												
Zero	0.14	0.01	0.04	0.03	0.01	0.01	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.015)	(0.002)	(0.007)	(0.005)	(0.003)	(0.003)	(0.011)	(0.010)	(0.000)	(0.004)	(0.000)	9,589
0.01–0.99	0.20	0.00	0.05	0.08	0.01	0.03	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.063)	(0.003)	(0.019)	(0.054)	(0.007)	(0.022)	(0.006)	(0.000)	(0.000)	(0.006)	(0.000)	542
1.00–1.99	0.17	0.01	0.03	0.03	0.01	0.05	0.04	0.00	0.00	0.04	0.00	
(s.e.)	(0.027)	(0.003)	(0.012)	(0.008)	(0.003)	(0.016)	(0.016)	(0.000)	(0.002)	(0.016)	(0.000)	972
2.00–2.99	0.16	0.00	0.02	0.05	0.03	0.01	0.04	0.00	0.00	0.04	0.00	
(s.e.)	(0.046)	(0.000)	(0.017)	(0.017)	(0.022)	(0.008)	(0.028)	(0.000)	(0.000)	(0.028)	(0.000)	277
3.00–3.99	0.20	0.02	0.00	0.01	0.01	0.02	0.15	0.00	0.02	0.13	0.00	
(s.e.)	(0.101)	(0.016)	(0.004)	(0.006)	(0.006)	(0.011)	(0.101)	(0.000)	(0.019)	(0.100)	(0.000)	139
4.00 or more	0.16	0.01	0.03	0.02	0.01	0.08	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.069)	(0.007)	(0.021)	(0.013)	(0.009)	(0.065)	(0.003)	(0.000)	(0.000)	(0.003)	(0.000)	188
Student parent status												
Parent	0.18	0.01	0.08	0.02	0.02	0.05	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.050)	(0.005)	(0.038)	(0.010)	(0.016)	(0.023)	(0.002)	(0.000)	(0.000)	(0.002)	(0.000)	242
Nonparent	0.14	0.01	0.04	0.04	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.014)	(0.002)	(0.005)	(0.006)	(0.003)	(0.005)	(0.010)	(0.009)	(0.000)	(0.004)	(0.000)	10,784
Expecting	0.29	0.01	0.17	0.03	0.01	0.05	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.119)	(0.007)	(0.113)	(0.020)	(0.005)	(0.024)	(0.025)	(0.004)	(0.002)	(0.025)	(0.000)	137

First row, first column reads: 1992 public high school graduates earned on average a total of 0.15 Carnegie units in cooperative education and work experience courses.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 24—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected school characteristics

School characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry				Technical & communications	Unweighted Ns
							All	Construction	Mechanics & repairs	Precision production		
Total*	0.15	0.01	0.04	0.04	0.01	0.02	0.03	0.01	0.00	0.02	0.00	
(s.e.)	(0.013)	(0.002)	(0.006)	(0.005)	(0.003)	(0.005)	(0.009)	(0.008)	(0.000)	(0.004)	(0.000)	11,707
School size												
1-500	0.11	0.02	0.03	0.01	0.01	0.01	0.03	0.00	0.01	0.02	0.00	
(s.e.)	(0.039)	(0.013)	(0.018)	(0.004)	(0.008)	(0.008)	(0.013)	(0.005)	(0.003)	(0.011)	(0.000)	1,571
501-1,000	0.11	0.00	0.04	0.02	0.01	0.01	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.016)	(0.002)	(0.009)	(0.005)	(0.004)	(0.004)	(0.007)	(0.000)	(0.003)	(0.006)	(0.000)	2,844
1,001-1,500	0.18	0.01	0.04	0.05	0.02	0.01	0.06	0.04	0.00	0.02	0.00	
(s.e.)	(0.040)	(0.002)	(0.010)	(0.012)	(0.008)	(0.003)	(0.036)	(0.036)	(0.000)	(0.009)	(0.000)	2,919
1,501 or more	0.18	0.01	0.04	0.05	0.02	0.05	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.022)	(0.002)	(0.009)	(0.008)	(0.005)	(0.018)	(0.007)	(0.000)	(0.001)	(0.007)	(0.000)	2,978
Urbanicity												
Urban	0.21	0.00	0.05	0.05	0.02	0.02	0.06	0.04	0.00	0.02	0.00	
(s.e.)	(0.043)	(0.002)	(0.018)	(0.010)	(0.008)	(0.007)	(0.038)	(0.037)	(0.000)	(0.009)	(0.000)	2,377
Suburban	0.14	0.01	0.05	0.04	0.01	0.01	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.018)	(0.004)	(0.009)	(0.010)	(0.003)	(0.004)	(0.006)	(0.000)	(0.000)	(0.006)	(0.000)	4,942
Rural	0.12	0.01	0.03	0.02	0.01	0.03	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.017)	(0.002)	(0.007)	(0.005)	(0.003)	(0.011)	(0.007)	(0.002)	(0.002)	(0.005)	(0.000)	4,268
Absentee rate												
0-5%	0.13	0.01	0.03	0.03	0.01	0.03	0.02	0.00	0.00	0.01	0.00	
(s.e.)	(0.021)	(0.006)	(0.007)	(0.007)	(0.004)	(0.009)	(0.006)	(0.002)	(0.001)	(0.006)	(0.000)	3,538
6-10%	0.18	0.01	0.04	0.04	0.02	0.01	0.06	0.03	0.00	0.03	0.00	
(s.e.)	(0.029)	(0.003)	(0.009)	(0.009)	(0.006)	(0.003)	(0.025)	(0.024)	(0.002)	(0.009)	(0.000)	4,379
11% or more	0.15	0.00	0.07	0.04	0.02	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.038)	(0.004)	(0.025)	(0.013)	(0.011)	(0.005)	(0.007)	(0.000)	(0.000)	(0.007)	(0.000)	833
Percent of students receiving free or reduced-price lunch												
0-5%	0.11	0.00	0.02	0.03	0.01	0.01	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.017)	(0.001)	(0.006)	(0.009)	(0.002)	(0.008)	(0.010)	(0.000)	(0.001)	(0.010)	(0.000)	2,568
6-10%	0.14	0.01	0.04	0.02	0.02	0.02	0.02	0.00	0.00	0.01	0.00	
(s.e.)	(0.023)	(0.003)	(0.011)	(0.006)	(0.015)	(0.007)	(0.006)	(0.000)	(0.003)	(0.005)	(0.000)	1,551
11-20%	0.17	0.01	0.06	0.06	0.01	0.01	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.026)	(0.004)	(0.016)	(0.014)	(0.003)	(0.002)	(0.014)	(0.000)	(0.001)	(0.014)	(0.000)	2,146
21% or more	0.18	0.01	0.03	0.03	0.02	0.03	0.05	0.04	0.00	0.01	0.00	
(s.e.)	(0.038)	(0.006)	(0.008)	(0.007)	(0.005)	(0.014)	(0.031)	(0.032)	(0.002)	(0.006)	(0.000)	3,468

Table 24—Average number of Carnegie units accumulated by 1992 public high school graduates in cooperative education and work experience courses by specific labor market preparation program, by selected school characteristics—Continued

School characteristics	Total	Agriculture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry				Technical & communications	Unweighted Ns
							All	Construction	Mechanics & repairs	Precision production		
Percent of students taking remedial reading												
0%	0.14	0.01	0.05	0.04	0.01	0.01	0.01	0.00	0.00	0.01	0.00	
(s.e.)	(0.023)	(0.004)	(0.013)	(0.014)	(0.005)	(0.005)	(0.004)	(0.002)	(0.000)	(0.004)	(0.000)	1,713
1-5%	0.15	0.01	0.04	0.03	0.01	0.02	0.04	0.00	0.00	0.03	0.00	
(s.e.)	(0.021)	(0.005)	(0.010)	(0.007)	(0.004)	(0.007)	(0.010)	(0.000)	(0.002)	(0.010)	(0.000)	3,523
6-10%	0.12	0.01	0.03	0.02	0.02	0.01	0.02	0.00	0.00	0.02	0.00	
(s.e.)	(0.018)	(0.002)	(0.006)	(0.006)	(0.010)	(0.006)	(0.012)	(0.000)	(0.002)	(0.012)	(0.000)	2,461
11% or more	0.20	0.01	0.05	0.04	0.02	0.03	0.06	0.05	0.00	0.01	0.00	
(s.e.)	(0.052)	(0.004)	(0.014)	(0.011)	(0.005)	(0.019)	(0.044)	(0.044)	(0.000)	(0.003)	(0.000)	2,231
Percent of students in special education												
0%	0.06	0.02	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
(s.e.)	(0.034)	(0.017)	(0.023)	(0.011)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	95
1-5%	0.19	0.01	0.07	0.03	0.01	0.01	0.06	0.05	0.00	0.01	0.00	
(s.e.)	(0.049)	(0.003)	(0.018)	(0.008)	(0.005)	(0.004)	(0.044)	(0.044)	(0.001)	(0.003)	(0.000)	2,452
6-10%	0.14	0.01	0.03	0.04	0.01	0.02	0.03	0.00	0.00	0.03	0.00	
(s.e.)	(0.020)	(0.005)	(0.006)	(0.009)	(0.004)	(0.007)	(0.010)	(0.002)	(0.001)	(0.009)	(0.000)	4,018
11% or more	0.15	0.00	0.03	0.03	0.03	0.02	0.04	0.00	0.01	0.03	0.00	
(s.e.)	(0.022)	(0.002)	(0.007)	(0.011)	(0.012)	(0.007)	(0.013)	(0.001)	(0.004)	(0.011)	(0.000)	2,089

First row, first column reads: 1992 public high school graduates earned on average a total of 0.15 Carnegie units in cooperative education and work experience courses.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 25—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected student characteristics

Student characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Total[2]	87.07	75.34	35.06	38.15	
(s.e.)	(0.559)	(0.879)	(0.964)	(1.190)	11,707
Sex					
Male	89.15	80.45	39.69	36.47	
(s.e.)	(0.661)	(1.069)	(1.386)	(1.416)	5,760
Female	85.03	70.32	30.33	39.79	
(s.e.)	(0.811)	(1.238)	(1.159)	(1.502)	5,917
Race-ethnicity					
White, non-Hispanic	86.55	74.73	35.51	38.46	
(s.e.)	(0.684)	(1.070)	(1.139)	(1.421)	8,269
Black, non-Hispanic	88.55	77.47	31.00	32.27	
(s.e.)	(1.367)	(2.566)	(2.431)	(2.582)	1,023
Hispanic	89.59	77.82	36.01	39.87	
(s.e.)	(1.271)	(1.796)	(2.718)	(2.855)	1,365
Asian	85.30	72.04	29.62	44.44	
(s.e.)	(1.631)	(2.322)	(3.302)	(3.387)	855
Native American	91.47	81.46	48.64	45.29	
(s.e.)	(2.625)	(4.376)	(5.092)	(5.001)	118
Total vocational Carnegie units accumulated					
0.00–1.99	59.17	38.10	5.33	27.48	
(s.e.)	(1.809)	(1.983)	(0.665)	(2.154)	3,127
2.00–3.99	93.88	80.52	24.71	36.67	
(s.e.)	(0.584)	(1.468)	(1.439)	(1.793)	3,587
4.00–5.99	99.07	93.30	48.58	44.40	
(s.e.)	(0.256)	(0.725)	(1.933)	(1.955)	2,565
6.00–7.99	98.79	94.68	67.27	45.44	
(s.e.)	(0.682)	(0.973)	(1.940)	(2.011)	1,469
8.00 or more	99.30	95.06	80.19	48.90	
(s.e.)	(0.332)	(1.033)	(1.957)	(2.749)	959
Total specific labor market preparation Carnegie units accumulated					
Zero	0.00	0.00	0.00	0.00	
(s.e.)	(0.000)	(0.000)	(0.000)	(0.000)	1,598
0.01–0.99	100.00	55.26	3.87	43.34	
(s.e.)	(0.000)	(4.181)	(0.735)	(4.028)	1,131
1.00–1.99	100.00	81.33	15.92	36.69	
(s.e.)	(0.000)	(1.560)	(1.307)	(2.179)	2,639
2.00–2.99	100.00	92.30	34.05	40.35	
(s.e.)	(0.000)	(1.638)	(2.249)	(2.086)	1,998
3.00–3.99	100.00	94.02	51.75	48.61	
(s.e.)	(0.000)	(0.892)	(2.093)	(2.140)	1,475
4.00 or more	100.00	96.38	75.55	50.38	
(s.e.)	(0.000)	(0.476)	(1.571)	(1.785)	2,866

Table 25—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected student characteristics—Continued

Student characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Area of specialization[3]					
College prep	78.24	62.15	21.99	35.95	
(s.e.)	(1.121)	(1.742)	(1.239)	(2.002)	3,951
Vocational	100.00	95.46	100.00	35.86	
(s.e.)	(0.000)	(0.944)	(0.000)	(2.677)	902
Other	90.18	79.87	33.71	39.64	
(s.e.)	(0.649)	(0.916)	(1.179)	(1.346)	6,854
Area of vocational program concentration[4]					
None	82.91	68.58	22.54	35.73	
(s.e.)	(0.723)	(1.093)	(0.946)	(1.323)	8,865
Agriculture	100.00	99.41	73.08	65.04	
(s.e.)	(0.000)	(0.356)	(3.754)	(5.174)	306
Business & office	100.00	98.10	72.23	53.68	
(s.e.)	(0.000)	(0.590)	(2.339)	(2.908)	898
Marketing & distribution	100.00	79.09	89.69	43.18	
(s.e.)	(0.000)	(4.553)	(2.539)	(6.263)	159
Health	100.00	84.89	54.34	43.65	
(s.e.)	(0.000)	(5.071)	(7.913)	(7.433)	79
Occupational home economics	100.00	91.05	51.34	32.22	
(s.e.)	(0.000)	(2.830)	(6.194)	(5.439)	195
Trade & industry	100.00	98.15	80.29	37.43	
(s.e.)	(0.000)	(0.520)	(1.854)	(2.304)	1,142
Technical & communications	100.00	99.13	55.30	57.90	
(s.e.)	(0.000)	(0.877)	(9.062)	(9.115)	63

First row, first column reads: Of all 1992 public high school graduates, 87.07 percent completed at least one specific labor market preparation course.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than the "all levels" column because students may have completed vocational courses at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 26—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected special populations characteristics

Special populations characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Total[2]	87.07	75.34	35.06	38.15	
(s.e.)	(0.559)	(0.879)	(0.964)	(1.190)	11,707
Socioeconomic status					
Lowest quartile	92.43	81.48	43.45	40.45	
(s.e.)	(0.650)	(1.557)	(2.017)	(1.919)	2,274
Second quartile	90.14	80.57	38.64	38.71	
(s.e.)	(1.012)	(1.360)	(1.757)	(2.008)	2,846
Third quartile	87.91	75.66	35.15	38.09	
(s.e.)	(0.920)	(1.425)	(1.621)	(1.846)	3,011
Highest quartile	78.30	63.57	22.71	36.55	
(s.e.)	(1.360)	(2.053)	(1.362)	(2.175)	3,063
Special needs status[3]					
Special needs	91.71	83.12	41.25	37.77	
(s.e.)	(0.869)	(1.227)	(1.726)	(1.799)	2,688
No special needs	84.89	72.58	32.55	38.47	
(s.e.)	(0.710)	(1.093)	(1.069)	(1.394)	8,137
Limited English proficiency status					
Limited English proficient	89.77	81.26	41.02	39.63	
(s.e.)	(2.522)	(3.391)	(5.134)	(4.815)	225
English proficient	86.49	75.12	34.45	38.66	
(s.e.)	(0.609)	(0.942)	(0.997)	(1.257)	10,349
Handicap status[4]					
Handicapped	92.09	80.44	45.70	40.88	
(s.e.)	(1.169)	(3.191)	(3.372)	(3.395)	611
Not handicapped	86.31	74.99	33.68	38.28	
(s.e.)	(0.624)	(0.960)	(1.028)	(1.269)	9,923
Secondary GPA					
3.3 or higher	77.55	63.57	23.62	37.11	
(s.e.)	(1.568)	(1.789)	(1.404)	(2.025)	2,238
2.6 to less than 3.3	85.54	73.03	33.42	37.71	
(s.e.)	(0.878)	(1.286)	(1.517)	(1.697)	3,936
1.6 to less than 2.6	91.12	80.18	39.78	38.97	
(s.e.)	(0.705)	(1.355)	(1.504)	(1.555)	4,928
Less than 1.6	91.91	84.77	40.62	37.26	
(s.e.)	(1.693)	(2.044)	(3.194)	(3.440)	600

Table 26—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected special populations characteristics—Continued

Special populations characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Remedial Carnegie units accumulated[5]					
Zero	85.82	74.44	32.66	37.79	
(s.e.)	(0.643)	(0.844)	(0.984)	(1.233)	9,589
0.01–0.99	93.26	70.53	41.82	44.44	
(s.e.)	(1.992)	(7.236)	(5.911)	(6.642)	542
1.00–1.99	91.06	82.00	45.09	40.39	
(s.e.)	(1.643)	(1.850)	(2.706)	(2.626)	972
2.00–2.99	94.13	87.01	49.03	31.68	
(s.e.)	(1.692)	(2.454)	(6.000)	(4.601)	277
3.00–3.99	92.23	82.11	43.67	35.52	
(s.e.)	(2.439)	(4.224)	(5.595)	(5.403)	139
4.00 or more	89.79	78.46	46.15	33.69	
(s.e.)	(2.991)	(4.279)	(5.193)	(4.841)	188
Student parent status					
Parent	95.97	82.67	37.63	33.93	
(s.e.)	(1.349)	(3.222)	(5.382)	(4.945)	242
Nonparent	86.63	74.54	34.20	38.62	
(s.e.)	(0.589)	(0.931)	(1.008)	(1.254)	10,784
Expecting	94.11	86.94	44.90	31.12	
(s.e.)	(2.178)	(3.039)	(6.161)	(4.872)	137

First row, first column reads: Of all 1992 public high school graduates, 87.07 percent completed at least one specific labor market preparation course.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[4] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982–92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[5] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may sum to greater than the "all levels" column because students may have completed vocational courses at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 27—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected school characteristics

School characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Total[2]	87.07	75.34	35.06	38.15	
(s.e.)	(0.559)	(0.879)	(0.964)	(1.190)	11,707
School size					
1-500	93.55	86.54	42.25	44.19	
(s.e.)	(0.939)	(1.450)	(3.039)	(3.619)	1,571
501-1,000	87.27	76.40	39.43	38.82	
(s.e.)	(1.144)	(1.491)	(1.638)	(2.419)	2,844
1,001-1,500	84.47	71.92	32.68	37.26	
(s.e.)	(1.085)	(1.584)	(1.714)	(2.053)	2,919
1,501 or more	83.60	71.73	30.90	34.67	
(s.e.)	(1.082)	(1.283)	(1.544)	(1.829)	2,798
Urbanicity					
Urban	85.36	71.40	33.58	37.33	
(s.e.)	(1.085)	(1.791)	(2.069)	(2.176)	2,377
Suburban	86.30	73.72	31.83	36.56	
(s.e.)	(0.904)	(1.474)	(1.489)	(1.958)	4,972
Rural	89.02	79.75	39.84	41.00	
(s.e.)	(0.865)	(1.175)	(1.514)	(1.951)	4,268
Absentee rate					
0-5%	86.27	75.33	36.48	39.84	
(s.e.)	(1.038)	(1.519)	(1.695)	(2.090)	3,538
6-10%	85.80	74.77	34.43	37.77	
(s.e.)	(0.854)	(1.097)	(1.412)	(1.859)	4,379
11% or more	89.41	80.65	39.95	36.89	
(s.e.)	(1.642)	(2.536)	(3.433)	(3.579)	833
Percent of students receiving free or reduced-price lunch					
0-5%	84.30	73.01	31.76	36.24	
(s.e.)	(1.309)	(1.659)	(1.994)	(2.352)	2,568
6-10%	84.18	74.45	34.19	34.96	
(s.e.)	(1.396)	(1.888)	(2.193)	(2.659)	1,551
11-20%		87.19	75.72	37.92	42.57
(s.e.)	(1.076)	(1.722)	(1.986)	(2.423)	2,146
21% or more	88.92	77.19	38.05	37.87	
(s.e.)	(0.849)	(1.212)	(1.593)	(2.216)	3,468
Percent of students taking remedial reading					
0%	86.29	77.41	33.10	32.34	
(s.e.)	(1.260)	(1.813)	(2.438)	(2.221)	1,713
1-5%	85.02	73.30	33.25	38.72	
(s.e.)	(1.142)	(1.440)	(1.624)	(2.021)	3,523
6-10%	87.58	78.11	39.68	42.69	
(s.e.)	(1.084)	(1.376)	(1.886)	(2.393)	2,461
11% or more	88.32	75.01	37.88	37.38	
(s.e.)	(1.083)	(1.692)	(1.912)	(2.760)	2,231

Table 27—Percentage of 1992 public high school graduates completing one or more courses in specific labor market preparation by level of course, by selected school characteristics—Continued

School characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Percent of students in special education					
0%	73.65	67.69	22.06	32.73	
(s.e.)	(7.711)	(9.192)	(7.420)	(7.917)	95
1-5%	87.21	73.95	34.83	41.69	
(s.e.)	(1.192)	(1.840)	(2.152)	(2.664)	2,452
6-10%	87.38	77.10	36.53	38.98	
(s.e.)	(0.865)	(1.175)	(1.463)	(1.998)	4,018
11% or more	85.24	75.90	35.96	34.69	
(s.e.)	(1.408)	(1.660)	(1.956)	(2.128)	2,089

First row, first column reads: Of all 1992 public high school graduates, 87.07 percent completed at least one specific labor market preparation course.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may sum to greater than the "all levels" column because students may have completed vocational courses at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 28—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected student characteristics

Student characteristics	Specific labor market preparation: All levels	First course	Second or higher course	Specialty course[1]	Unweighted Ns
Total[2]	2.53	1.48	0.66	0.39	
(s.e.)	(0.046)	(0.030)	(0.025)	(0.015)	11,707
Sex					
Male	2.86	1.70	0.78	0.38	
(s.e.)	(0.066)	(0.040)	(0.037)	(0.018)	5,760
Female	2.19	1.25	0.54	0.40	
(s.e.)	(0.057)	(0.038)	(0.030)	(0.019)	5,917
Race-ethnicity					
White, non-Hispanic	2.52	1.46	0.67	0.38	
(s.e.)	(0.054)	(0.035)	(0.030)	(0.016)	8,269
Black, non-Hispanic	2.50	1.58	0.57	0.36	
(s.e.)	(0.095)	(0.082)	(0.049)	(0.039)	1,023
Hispanic	2.58	1.41	0.70	0.47	
(s.e.)	(0.113)	(0.059)	(0.080)	(0.057)	1,365
Asian	2.26	1.36	0.47	0.43	
(s.e.)	(0.205)	(0.133)	(0.084)	(0.044)	855
Native American	3.36	1.95	0.98	0.43	
(s.e.)	(0.351)	(0.229)	(0.219)	(0.064)	118
Total vocational Carnegie units accumulated					
0.00–1.99	0.49	0.28	0.03	0.17	
(s.e.)	(0.017)	(0.016)	(0.005)	(0.013)	3,127
2.00–3.99	1.68	1.09	0.26	0.32	
(s.e.)	(0.032)	(0.028)	(0.025)	(0.019)	3,587
4.00–5.99	3.11	1.89	0.72	0.50	
(s.e.)	(0.050)	(0.044)	(0.033)	(0.031)	2,565
6.00–7.99	4.67	2.67	1.43	0.58	
(s.e.)	(0.069)	(0.067)	(0.069)	(0.036)	1,469
8.00 or more	7.18	3.73	2.71	0.74	
(s.e.)	(0.134)	(0.127)	(0.138)	(0.053)	959
Total specific labor market preparation Carnegie units accumulated					
Zero	0.00	0.00	0.00	0.00	
(s.e.)	(0.000)	(0.000)	(0.000)	(0.000)	1,598
0.01–0.99	0.50	0.27	0.02	0.21	
(s.e.)	(0.006)	(0.020)	(0.004)	(0.020)	1,131
1.00–1.99	1.19	0.80	0.12	0.28	
(s.e.)	(0.010)	(0.018)	(0.010)	(0.019)	2,639
2.00–2.99	2.21	1.45	0.38	0.38	
(s.e.)	(0.012)	(0.036)	(0.043)	(0.025)	1,998
3.00–3.99	3.19	1.99	0.69	0.51	
(s.e.)	(0.009)	(0.036)	(0.034)	(0.030)	1,475
4.00 or more	5.78	3.14	1.92	0.72	
(s.e.)	(0.068)	(0.064)	(0.069)	(0.035)	2,866

Table 28—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected student characteristics—Continued

Student characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Area of specialization[3]					
College prep	1.48	0.91	0.26	0.31	
(s.e.)	(0.049)	(0.037)	(0.019)	(0.020)	3,951
Vocational	6.82	2.81	3.63	0.38	
(s.e.)	(0.123)	(0.082)	(0.106)	(0.032)	902
Other	2.55	1.62	0.49	0.44	
(s.e.)	(0.048)	(0.037)	(0.023)	(0.019)	6,854
Area of vocational program concentration[4]					
None	1.57	0.96	0.30	0.32	
(s.e.)	(0.029)	(0.020)	(0.018)	(0.014)	8,865
Agriculture	6.01	3.39	1.56	1.07	
(s.e.)	(0.197)	(0.159)	(0.148)	(0.109)	306
Business & office	4.86	2.90	1.32	0.64	
(s.e.)	(0.088)	(0.081)	(0.072)	(0.051)	898
Marketing & distribution	4.92	1.77	2.44	0.71	
(s.e.)	(0.204)	(0.138)	(0.189)	(0.135)	159
Health	5.55	2.93	1.67	0.94	
(s.e.)	(0.359)	(0.407)	(0.320)	(0.215)	79
Occupational home economics	5.96	3.73	1.61	0.62	
(s.e.)	(0.218)	(0.362)	(0.241)	(0.134)	195
Trade & industry	5.94	3.28	2.20	0.46	
(s.e.)	(0.126)	(0.082)	(0.117)	(0.040)	1,142
Technical & communications	5.29	3.02	1.12	1.15	
(s.e.)	(0.198)	(0.212)	(0.229)	(0.213)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 2.53 Carnegie units in specific labor market preparation courses.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the "all levels" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 29—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected special populations characteristics

Special populations characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Total[2]	2.53	1.48	0.66	0.39	
(s.e.)	(0.046)	(0.030)	(0.025)	(0.015)	11,707
Socioeconomic status					
Lowest quartile	3.17	1.81	0.87	0.49	
(s.e.)	(0.103)	(0.068)	(0.055)	(0.036)	2,274
Second quartile	2.92	1.74	0.78	0.40	
(s.e.)	(0.088)	(0.055)	(0.054)	(0.024)	2,846
Third quartile	2.44	1.41	0.64	0.39	
(s.e.)	(0.064)	(0.042)	(0.039)	(0.024)	3,011
Highest quartile	1.59	0.94	0.33	0.32	
(s.e.)	(0.055)	(0.037)	(0.025)	(0.019)	3,063
Special needs status[3]					
Special needs	3.08	1.83	0.81	0.43	
(s.e.)	(0.078)	(0.050)	(0.042)	(0.026)	2,688
No special needs	2.30	1.34	0.59	0.38	
(s.e.)	(0.050)	(0.033)	(0.027)	(0.016)	8,137
Limited English proficiency status					
Limited English proficient	2.94	1.62	0.86	0.46	
(s.e.)	(0.235)	(0.130)	(0.128)	(0.081)	225
English proficient	2.48	1.46	0.63	0.39	
(s.e.)	(0.047)	(0.031)	(0.025)	(0.015)	10,349
Handicap status					
Handicapped	3.49	2.07	0.93	0.49	
(s.e.)	(0.170)	(0.137)	(0.087)	(0.058)	611
Not handicapped	2.42	1.42	0.61	0.39	
(s.e.)	(0.047)	(0.030)	(0.025)	(0.015)	9,923
Secondary GPA					
3.3 or higher	1.60	0.94	0.32	0.34	
(s.e.)	(0.058)	(0.036)	(0.026)	(0.025)	2,238
2.6 to less than 3.3	2.32	1.36	0.60	0.36	
(s.e.)	(0.073)	(0.047)	(0.042)	(0.018)	3,936
1.6 to less than 2.6	2.96	1.73	0.80	0.43	
(s.e.)	(0.068)	(0.044)	(0.039)	(0.020)	4,928
Less than 1.6	3.14	1.85	0.85	0.43	
(s.e.)	(0.156)	(0.103)	(0.082)	(0.057)	600

Table 29—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected special populations characteristics—Continued

Special populations characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Remedial Carnegie units accumulated[5]					
Zero	2.38	1.40	0.60	0.38	
(s.e.)	(0.047)	(0.030)	(0.025)	(0.016)	9,589
0.01–0.99	2.58	1.50	0.69	0.39	
(s.e.)	(0.248)	(0.181)	(0.116)	(0.049)	542
1.00–1.99	3.21	1.85	0.92	0.44	
(s.e.)	(0.139)	(0.081)	(0.079)	(0.039)	972
2.00–2.99	3.43	1.92	1.16	0.34	
(s.e.)	(0.220)	(0.132)	(0.175)	(0.053)	277
3.00–3.99	3.51	1.94	1.14	0.43	
(s.e.)	(0.285)	(0.238)	(0.230)	(0.093)	139
4.00 or more	4.04	2.46	1.09	0.50	
(s.e.)	(0.281)	(0.242)	(0.149)	(0.106)	188
Student parent status					
Parent	2.82	1.78	0.70	0.33	
(s.e.)	(0.375)	(0.352)	(0.116)	(0.053)	242
Nonparent	2.46	1.43	0.64	0.39	
(s.e.)	(0.047)	(0.029)	(0.026)	(0.015)	10,784
Expecting	3.11	1.93	0.84	0.34	
(s.e.)	(0.301)	(0.173)	(0.146)	(0.078)	137

First row, first column reads: 1992 public high school graduates earned on average a total of 2.53 Carnegie units in all specific labor market preparation courses.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[4] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982–92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[5] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to the "all levels" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 30—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected school characteristics

School characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Total[2]	2.53	1.48	0.66	0.39	
(s.e.)	(0.046)	(0.030)	(0.025)	(0.015)	11,707
School size					
1-500	3.10	1.87	0.74	0.49	
(s.e.)	(0.134)	(0.089)	(0.075)	(0.056)	1,571
501-1,000	2.72	1.58	0.75	0.39	
(s.e.)	(0.089)	(0.059)	(0.045)	(0.028)	2,844
1,001-1,500	2.43	1.38	0.67	0.38	
(s.e.)	(0.085)	(0.052)	(0.057)	(0.026)	2,919
1,501 or more	2.16	1.26	0.55	0.35	
(s.e.)	(0.064)	(0.043)	(0.039)	(0.023)	2,978
Urbanicity					
Urban	2.36	1.28	0.68	0.40	
(s.e.)	(0.092)	(0.049)	(0.064)	(0.034)	2,377
Suburban	2.29	1.36	0.58	0.35	
(s.e.)	(0.066)	(0.045)	(0.036)	(0.022)	4,972
Rural	2.93	1.75	0.74	0.44	
(s.e.)	(0.074)	(0.052)	(0.039)	(0.023)	4,268
Absentee rate					
0-5%	2.51	1.50	0.61	0.40	
(s.e.)	(0.077)	(0.052)	(0.039)	(0.025)	3,538
6-10%	2.51	1.43	0.69	0.39	
(s.e.)	(0.071)	(0.044)	(0.043)	(0.026)	4,379
11% or more	2.82	1.68	0.75	0.39	
(s.e.)	(0.179)	(0.109)	(0.087)	(0.045)	833
Percent of students receiving free or reduced-price lunch					
0-5%	2.17	1.31	0.50	0.35	
(s.e.)	(0.085)	(0.061)	(0.039)	(0.027)	2,568
6-10%	2.46	1.45	0.67	0.35	
(s.e.)	(0.105)	(0.064)	(0.058)	(0.034)	1,551
11-20%	2.63	1.51	0.71	0.42	
(s.e.)	(0.087)	(0.053)	(0.057)	(0.026)	2,146
21% or more	2.82	1.60	0.78	0.43	
(s.e.)	(0.085)	(0.055)	(0.053)	(0.032)	3,468
Percent of students taking remedial reading					
0%	2.44	1.51	0.60	0.33	
(s.e.)	(0.113)	(0.077)	(0.057)	(0.031)	1,713
1-5%	2.33	1.35	0.59	0.38	
(s.e.)	(0.070)	(0.046)	(0.040)	(0.023)	3,523
6-10%	2.74	1.56	0.73	0.45	
(s.e.)	(0.092)	(0.060)	(0.049)	(0.037)	2,461
11% or more	2.77	1.56	0.81	0.40	
(s.e.)	(0.108)	(0.065)	(0.072)	(0.035)	2,231

Table 30—Average number of Carnegie units accumulated by 1992 public high school graduates in specific labor market preparation courses by level of course, by selected school characteristics—Continued

School characteristics	Specific labor market preparation				Unweighted Ns
	All levels	First course	Second or higher course	Specialty course[1]	
Percent of students in special education					
0%	1.77	0.87	0.60	0.30	
(s.e.)	(0.514)	(0.212)	(0.281)	(0.118)	95
1-5%	2.55	1.45	0.66	0.44	
(s.e.)	(0.105)	(0.061)	(0.069)	(0.039)	2,452
6-10%	2.58	1.52	0.64	0.41	
(s.e.)	(0.067)	(0.045)	(0.034)	(0.024)	4,018
11% or more	2.55	1.49	0.73	0.33	
(s.e.)	(0.105)	(0.067)	(0.057)	(0.026)	2,089

First row, first column reads: 1992 public high school graduates earned on average a total of 2.53 Carnegie units in specific labor market preparation courses.

[1] Specialty courses are nonsequential courses in a vocational program area, usually covering topics of special interest to students.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the "all levels" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 31—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected student characteristics

Student characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & com-munications	Un-weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor-tation		
Total[1]	2.75	11.80	2.71	0.66	1.88	12.93	1.44	2.69	9.87	0.06	2.60	11,707
(s.e.)	(0.386)	(0.559)	(0.333)	(0.110)	(0.269)	(0.600)	(0.189)	(0.239)	(0.541)	(0.028)	(0.260)	
Sex												
Male	4.85	6.27	2.70	0.24	0.91	22.48	2.62	5.18	16.78	0.13	3.27	5,760
(s.e.)	(0.736)	(0.499)	(0.532)	(0.109)	(0.283)	(1.111)	(0.328)	(0.481)	(0.975)	(0.058)	(0.357)	
Female	0.56	17.28	2.77	1.08	2.84	3.42	0.26	0.15	3.04	0.00	1.98	5,917
(s.e.)	(0.120)	(0.911)	(0.353)	(0.180)	(0.381)	(0.467)	(0.185)	(0.062)	(0.432)	(0.000)	(0.343)	
Race–ethnicity												
White, non-Hispanic	3.17	12.03	2.93	0.62	1.42	13.40	1.45	2.86	10.31	0.06	2.88	8,269
(s.e.)	(0.497)	(0.668)	(0.433)	(0.120)	(0.231)	(0.745)	(0.228)	(0.296)	(0.662)	(0.028)	(0.317)	
Black, non-Hispanic	1.32	11.41	2.56	0.60	4.46	8.72	1.48	1.15	6.17	0.08	0.80	1,023
(s.e.)	(0.419)	(1.559)	(0.600)	(0.220)	(1.377)	(1.137)	(0.405)	(0.359)	(1.054)	(0.075)	(0.293)	
Hispanic	1.40	12.07	2.25	0.76	2.91	10.68	1.29	2.03	8.37	0.11	2.70	1,365
(s.e.)	(0.309)	(1.608)	(0.418)	(0.308)	(1.184)	(1.178)	(0.555)	(0.420)	(1.139)	(0.082)	(0.935)	
Asian	0.55	9.67	0.99	1.39	0.36	14.29	0.72	2.50	11.48	0.00	2.73	855
(s.e.)	(0.318)	(2.147)	(0.316)	(0.875)	(0.233)	(3.171)	(0.339)	(0.828)	(3.007)	(0.000)	(0.662)	
Native American	3.17	12.98	1.49	0.47	4.35	25.07	3.38	7.22	17.21	0.00	2.94	118
(s.e.)	(2.206)	(3.804)	(1.102)	(0.479)	(2.296)	(4.699)	(1.770)	(2.995)	(4.660)	(0.000)	(2.903)	
Total vocational Carnegie units accumulated												
0.00–1.99	0.00	2.20	0.15	0.17	0.17	0.97	0.03	0.03	0.91	0.00	1.32	3,127
(s.e.)	(0.000)	(0.387)	(0.062)	(0.172)	(0.065)	(0.234)	(0.021)	(0.034)	(0.227)	(0.000)	(0.442)	
2.00–3.99	0.61	8.66	2.33	0.25	1.16	6.88	0.22	0.87	5.84	0.03	2.94	3,587
(s.e.)	(0.144)	(0.773)	(0.772)	(0.091)	(0.509)	(0.652)	(0.084)	(0.220)	(0.599)	(0.022)	(0.397)	
4.00–5.99	3.89	16.70	4.05	1.04	1.79	18.77	0.98	3.35	15.41	0.08	2.58	2,565
(s.e.)	(1.103)	(1.161)	(0.645)	(0.277)	(0.318)	(1.513)	(0.228)	(0.546)	(1.512)	(0.063)	(0.422)	
6.00–7.99	5.62	22.95	5.94	1.09	4.29	26.31	3.36	5.97	19.90	0.21	3.41	1,469
(s.e.)	(0.993)	(1.637)	(1.033)	(0.316)	(1.121)	(1.708)	(0.581)	(0.801)	(1.620)	(0.142)	(0.604)	
8.00 or more	11.56	23.18	3.65	1.97	6.35	36.09	8.55	10.77	22.33	0.12	4.14	959
(s.e.)	(1.792)	(2.369)	(0.627)	(0.511)	(1.017)	(2.500)	(1.582)	(1.500)	(2.055)	(0.088)	(1.208)	

Table 31—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected student characteristics—Continued

						Trade & industry						
Student characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transpor-tation	Technical & com-munications	Un-weighted Ns
Total specific labor market preparation Carnegie units accumulated												
Zero	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	
(s.e.)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	1,598
0.01–0.99	0.00	2.63	0.16	0.00	0.12	0.51	0.00	0.00	0.51	0.00	0.28	
(s.e.)	(0.000)	(0.606)	(0.116)	(0.000)	(0.089)	(0.274)	(0.000)	(0.000)	(0.274)	(0.000)	(0.177)	1,131
1.00–1.99	0.22	6.77	0.50	0.26	1.01	2.76	0.13	0.33	2.30	0.01	2.25	
(s.e.)	(0.108)	(0.749)	(0.164)	(0.208)	(0.521)	(0.426)	(0.061)	(0.163)	(0.392)	(0.010)	(0.543)	2,639
2.00–2.99	2.08	13.17	3.27	0.41	1.20	10.11	0.30	1.23	8.81	0.00	2.76	
(s.e.)	(1.242)	(1.314)	(1.317)	(0.152)	(0.263)	(1.500)	(0.158)	(0.309)	(1.483)	(0.000)	(0.418)	1,998
3.00–3.99	2.72	17.40	4.29	1.33	2.83	17.16	0.71	2.18	14.47	0.15	4.60	
(s.e.)	(0.616)	(1.331)	(0.985)	(0.465)	(1.017)	(1.597)	(0.221)	(0.490)	(1.541)	(0.087)	(0.772)	1,475
4.00 or more	8.00	22.45	5.95	1.48	4.35	33.62	5.10	8.53	24.01	0.17	4.11	
(s.e.)	(1.030)	(1.307)	(0.674)	(0.268)	(0.656)	(1.621)	(0.700)	(0.835)	(1.439)	(0.084)	(0.627)	2,866
Area of specialization[3]												
College prep	0.40	10.00	1.24	0.42	0.80	5.87	0.11	0.41	5.45	0.07	4.02	
(s.e.)	(0.146)	(0.877)	(0.238)	(0.122)	(0.343)	(0.601)	(0.067)	(0.118)	(0.598)	(0.036)	(0.565)	3,951
Vocational	10.36	22.16	9.16	2.72	8.30	55.16	11.70	17.97	34.33	0.13	3.29	
(s.e.)	(1.604)	(2.253)	(1.552)	(0.600)	(1.186)	(2.507)	(1.777)	(1.939)	(2.408)	(0.092)	(0.714)	902
Other	3.03	11.43	2.67	0.52	1.62	11.26	0.83	1.93	9.08	0.05	1.73	
(s.e.)	(0.528)	(0.645)	(0.476)	(0.138)	(0.330)	(0.740)	(0.164)	(0.263)	(0.697)	(0.029)	(0.232)	6,854

Table 31—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected student characteristics—Continued

Student characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & com-munications	Un-weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor-tation		
Area of vocational program concentration[4]												
None	1.13	7.85	1.71	0.36	1.22	5.98	0.20	0.78	5.18	0.03	2.33	
(s.e.)	(0.320)	(0.523)	(0.340)	(0.099)	(0.279)	(0.513)	(0.055)	(0.162)	(0.501)	(0.020)	(0.253)	8,865
Agriculture	65.60	7.94	0.59	0.21	1.57	13.77	3.20	5.11	7.67	0.00	1.17	
(s.e.)	(4.312)	(2.308)	(0.428)	(0.213)	(1.032)	(3.369)	(1.771)	(2.389)	(2.045)	(0.000)	(0.667)	306
Business & office	0.36	68.14	1.22	0.80	0.93	2.95	0.08	0.32	2.46	0.08	3.56	
(s.e.)	(0.184)	(2.448)	(0.405)	(0.318)	(0.310)	(0.684)	(0.083)	(0.209)	(0.643)	(0.083)	(1.147)	898
Marketing & distribution	1.97	5.88	86.23	0.00	0.80	5.28	0.51	0.66	4.10	0.00	0.59	
(s.e.)	(1.237)	(2.023)	(3.172)	(0.000)	(0.569)	(1.694)	(0.513)	(0.663)	(1.465)	(0.000)	(0.596)	159
Health	0.00	4.64	1.36	49.39	1.08	0.73	0.00	0.00	0.73	0.00	1.58	
(s.e.)	(0.000)	(2.301)	(0.998)	(7.824)	(1.083)	(0.716)	(0.000)	(0.000)	(0.716)	(0.000)	(1.571)	79
Occupational home economics	1.38	5.85	1.21	0.00	39.68	2.94	0.00	0.45	2.49	0.00	1.27	
(s.e.)	(1.064)	(2.454)	(0.762)	(0.000)	(6.142)	(1.335)	(0.000)	(0.332)	(1.288)	(0.000)	(1.229)	195
Trade & industry	2.92	2.33	1.45	0.10	0.24	77.30	11.88	19.56	54.78	0.36	2.04	
(s.e.)	(0.742)	(0.525)	(0.900)	(0.100)	(0.188)	(1.923)	(1.634)	(1.716)	(2.314)	(0.209)	(0.543)	1,142
Technical & communications	0.00	2.88	2.19	0.00	0.00	14.31	5.13	0.00	9.19	0.00	51.41	
(s.e.)	(0.000)	(2.066)	(2.135)	(0.000)	(0.000)	(5.914)	(3.471)	(0.000)	(3.722)	(0.000)	(9.376)	63

First row, first column reads: Of all 1992 public high school graduates, 2.75 percent completed at least one second-level or higher agriculture course.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Not applicable.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Trade & industry estimates may sum to greater than the "all" column because students may have participated in more than one trade & industry program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 32—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected special populations characteristics

Special populations characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry						Technical & com-munications	Un-weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor-tation			
Total[1]	2.75	11.80	2.71	0.66	1.88	12.93	1.44	2.69	9.87	0.06		2.60	
(s.e.)	(0.386)	(0.559)	(0.333)	(0.110)	(0.269)	(0.600)	(0.189)	(0.239)	(0.541)	(0.028)		(0.260)	11,707
Socioeconomic status													
Lowest quartile	4.35	14.93	4.40	1.07	3.55	13.31	1.89	2.86	9.62	0.13		1.69	
(s.e.)	(0.682)	(1.220)	(1.379)	(0.269)	(0.808)	(1.134)	(0.361)	(0.540)	(0.943)	(0.074)		(0.342)	2,274
Second quartile	3.97	12.74	1.94	0.17	2.20	15.35	1.66	3.57	11.47	0.09		2.33	
(s.e.)	(1.023)	(0.963)	(0.307)	(0.176)	(0.502)	(1.245)	(0.449)	(0.534)	(1.155)	(0.056)		(0.394)	2,846
Third quartile	2.01	11.38	2.54	0.44	0.92	13.28	1.21	2.34	10.63	0.09		3.47	
(s.e.)	(0.366)	(0.921)	(0.493)	(0.135)	(0.492)	(1.156)	(0.236)	(0.322)	(1.095)	(0.047)		(0.627)	3,011
Highest quartile	0.75	8.57	2.23	0.51	0.74	7.45	0.51	1.00	6.44	0.00		2.80	
(s.e.)	(0.171)	(0.797)	(0.342)	(0.227)	(0.192)	(0.741)	(0.143)	(0.184)	(0.715)	(0.000)		(0.408)	3,063
Special needs status[2]													
Special needs	3.32	8.40	3.41	0.64	3.98	17.59	2.39	4.20	12.51	0.09		1.46	
(s.e.)	(0.506)	(0.800)	(0.604)	(0.142)	(0.835)	(1.181)	(0.386)	(0.512)	(1.060)	(0.050)		(0.312)	2,688
No special needs	2.45	13.24	2.12	0.71	1.20	10.88	1.07	1.92	8.75	0.05		3.11	
(s.e.)	(0.452)	(0.696)	(0.212)	(0.149)	(0.189)	(0.670)	(0.205)	(0.238)	(0.612)	(0.028)		(0.328)	8,137
Limited English proficiency status													
Limited English proficient	6.50	7.66	1.04	1.68	3.29	16.85	2.90	4.80	11.60	0.00		4.17	
(s.e.)	(2.521)	(1.931)	(0.589)	(0.938)	(1.766)	(3.426)	(1.776)	(2.097)	(2.861)	(0.000)		(3.665)	225
English proficient	2.57	12.15	2.39	0.70	1.77	12.41	1.33	2.46	9.64	0.06		2.71	
(s.e.)	(0.395)	(0.598)	(0.247)	(0.123)	(0.271)	(0.639)	(0.186)	(0.243)	(0.575)	(0.028)		(0.273)	10,349

Table 32—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected special populations characteristics—Continued

Special populations characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry					Technical & com-munications	Un-weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor-tation		
Handicap status[3]												
Handicapped	4.72	10.70	2.92	0.80	2.75	16.76	2.69	4.53	11.62	0.00	2.22	
(s.e.)	(1.280)	(2.493)	(1.059)	(0.335)	(0.777)	(2.088)	(0.932)	(1.144)	(1.707)	(0.000)	(0.583)	661
Not handicapped	2.51	12.09	2.33	0.71	1.74	12.15	1.29	2.32	9.48	0.07	2.74	
(s.e.)	(0.393)	(0.597)	(0.245)	(0.128)	(0.283)	(0.660)	(0.193)	(0.241)	(0.591)	(0.029)	0.279	9,923
Secondary GPA												
3.3 or higher	1.50	11.21	1.16	0.74	0.69	5.60	0.55	0.34	5.10	0.00	3.78	
(s.e.)	(0.378)	(0.961)	(0.281)	(0.312)	(0.206)	(0.691)	(0.213)	(0.166)	(0.662)	(0.000)	(0.547)	2,238
2.6 to less than 3.3	2.81	13.83	2.04	0.57	1.39	9.98	0.83	1.75	8.16	0.06	3.22	
(s.e.)	(0.738)	(0.995)	(0.292)	(0.141)	(0.283)	(0.915)	(0.308)	(0.351)	(0.858)	(0.030)	(0.465)	3,936
1.6 to less than 2.6	3.06	11.06	3.48	0.71	2.51	17.15	2.00	3.98	12.58	0.10	1.95	
(s.e.)	(0.413)	(0.763)	(0.617)	(0.159)	(0.431)	(1.023)	(0.287)	(0.400)	(0.915)	(0.057)	(0.330)	4,928
Less than 1.6	3.57	7.64	5.03	0.61	3.17	17.97	3.19	4.85	12.01	0.00	0.69	
(s.e.)	(1.006)	(1.260)	(1.946)	(0.261)	(1.034)	(2.056)	(0.872)	(1.042)	(1.685)	(0.000)	(0.358)	600

Table 32—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected special populations characteristics—Continued

						Trade & industry						
Special populations characteristics	Agri- culture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transpor- tation	Technical & com- munications	Un- weighted Ns
Remedial Carnegie units accumulated[4]												
Zero	2.52	12.44	2.46	0.72	1.35	11.32	1.15	2.04	8.98	0.05	2.80	
(s.e.)	(0.422)	(0.645)	(0.249)	(0.127)	(0.225)	(0.614)	(0.194)	(0.225)	(0.568)	(0.026)	(0.286)	9,589
0.01-0.99	1.73	9.53	7.31	0.33	2.41	15.99	0.49	3.18	12.82	0.18	2.29	
(s.e.)	(0.655)	(1.820)	(3.960)	(0.239)	(0.803)	(3.504)	(0.257)	(1.079)	(3.296)	(0.130)	(1.002)	542
1.00-1.99	4.02	11.08	1.92	0.37	4.86	19.18	2.20	5.93	13.33	0.12	2.03	
(s.e.)	(1.167)	(1.469)	(0.438)	(0.177)	(1.456)	(2.006)	(0.647)	(1.067)	(1.793)	(0.084)	(0.670)	972
2.00-2.99	3.76	7.42	3.40	0.72	1.65	23.73	4.24	7.34	15.74	0.00	0.84	
(s.e.)	(1.515)	(2.246)	(1.132)	(0.392)	(0.664)	(3.700)	(1.316)	(1.982)	(2.918)	(0.000)	(0.519)	277
3.00-3.99	6.70	5.51	1.29	0.62	2.74	24.65	7.11	7.10	15.56	0.00	0.49	
(s.e.)	(2.585)	(1.879)	(0.764)	(0.616)	(1.145)	(4.979)	(3.164)	(3.053)	(4.325)	(0.000)	(0.486)	139
4.00 or more	5.85	4.97	2.38	0.56	9.05	20.87	6.16	4.73	10.65	0.00	1.18	
(s.e.)	(2.245)	(2.304)	(1.142)	(0.399)	(2.993)	(4.029)	(2.533)	(1.707)	(3.212)	(0.000)	(0.686)	188
Student parent status												
Parent	1.77	17.65	2.72	0.65	7.41	5.18	0.77	1.56	3.08	0.00	0.83	
(s.e.)	(0.772)	(3.327)	(1.373)	(0.483)	(2.911)	(1.371)	(0.452)	(0.817)	(0.972)	(0.000)	(0.612)	242
Nonparent	2.68	11.34	2.67	0.65	1.78	12.51	1.32	2.41	9.72	0.07	2.76	
(s.e.)	(0.401)	(0.571)	(0.361)	(0.114)	(0.281)	(0.645)	(0.189)	(0.230)	(0.582)	(0.032)	(0.272)	10,784
Expecting	4.58	18.52	1.76	1.18	8.15	12.35	3.55	3.12	8.64	0.00	0.00	
(s.e.)	(2.057)	(4.727)	(1.035)	(0.941)	(3.819)	(3.238)	(1.880)	(1.961)	(2.766)	(0.000)	(0.000)	137

First row, first column reads: Of all 1992 public high school graduates, 2.75 percent completed at least one second-level or higher agriculture course.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[3] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[4] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Trade & industry estimates may sum to greater than the "all" column because students may have participated in more than one trade & industry program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 33—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected school characteristics

School characteristics	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry: All	Trade & industry: Construction	Trade & industry: Mechanics & repairs	Trade & industry: Precision production	Trade & industry: Transpor-tation	Technical & com-munications	Un-weighted Ns
Total*	2.75	11.80	2.71	0.66	1.88	12.93	1.44	2.69	9.87	0.06	2.60	
(s.e.)	(0.386)	(0.559)	(0.333)	(0.110)	(0.269)	(0.600)	(0.189)	(0.239)	(0.541)	(0.028)	(0.260)	11,707
School size												
1-500	10.68	16.51	0.90	0.78	1.42	15.88	2.00	2.66	12.84	0.00	2.46	
(s.e.)	(2.390)	(2.048)	(0.426)	(0.452)	(0.718)	(2.236)	(0.725)	(0.700)	(2.212)	(0.000)	(0.615)	1,571
501-1,000	3.27	14.10	1.65	0.49	2.30	14.40	1.61	2.98	11.06	0.03	3.41	
(s.e.)	(0.710)	(1.180)	(0.334)	(0.201)	(0.558)	(1.106)	(0.311)	(0.411)	(1.094)	(0.029)	(0.628)	2,844
1,001-1,500	1.19	9.64	3.57	0.66	1.14	12.43	1.93	2.19	9.24	0.12	2.34	
(s.e.)	(0.296)	(0.913)	(0.600)	(0.172)	(0.244)	(1.176)	(0.524)	(0.441)	(1.064)	(0.087)	(0.405)	2,919
1,501 or more	0.64	10.39	3.31	1.12	2.68	10.41	0.63	2.37	8.21	0.12	2.08	
(s.e.)	(0.159)	(0.844)	(0.469)	(0.325)	(0.749)	(0.742)	(0.241)	(0.348)	(0.695)	(0.069)	(0.439)	2,978
Urbanicity												
Urban	0.25	11.17	3.73	0.89	2.22	10.80	1.21	1.60	8.65	0.10	2.38	
(s.e.)	(0.114)	(1.081)	(0.725)	(0.314)	(0.579)	(1.126)	(0.505)	(0.300)	(0.991)	(0.082)	(0.540)	2,377
Suburban	1.25	10.28	3.01	0.53	1.50	12.38	1.07	2.70	9.56	0.03	2.83	
(s.e.)	(0.396)	(0.782)	(0.620)	(0.136)	(0.383)	(0.841)	(0.213)	(0.319)	(0.754)	(0.020)	(0.378)	4,972
Rural	6.10	14.47	1.58	0.72	2.25	14.61	2.04	3.22	10.79	0.09	2.55	
(s.e.)	(0.974)	(1.128)	(0.287)	(0.195)	(0.511)	(1.163)	(0.351)	(0.517)	(1.087)	(0.061)	(0.508)	4,268
Absentee rate												
0-5%	5.24	12.26	2.43	0.66	2.38	13.43	1.21	2.44	10.84	0.06	1.72	
(s.e.)	(1.215)	(0.933)	(0.413)	(0.238)	(0.586)	(1.179)	(0.313)	(0.412)	(1.123)	(0.064)	(0.316)	3,538
6-10%	2.10	12.25	2.56	0.93	1.07	13.33	1.68	2.18	10.60	0.11	3.27	
(s.e.)	(0.396)	(0.971)	(0.400)	(0.220)	(0.182)	(1.011)	(0.390)	(0.333)	(0.979)	(0.057)	(0.442)	4,379
11% or more	2.11	13.93	3.14	1.03	2.60	13.53	1.97	4.39	9.74	0.06	2.65	
(s.e.)	(0.716)	(2.173)	(0.855)	(0.592)	(1.419)	(1.695)	(0.804)	(0.986)	(1.402)	(0.058)	(0.796)	833
Percent of students receiving free or reduced-price lunch												
0-5%	1.93	9.18	2.58	0.40	1.21	13.82	0.78	2.67	11.56	0.06	2.88	
(s.e.)	(1.028)	(0.897)	(0.468)	(0.177)	(0.518)	(1.614)	(0.277)	(0.522)	(1.540)	(0.041)	(0.453)	2,568
6-10%	2.42	13.18	2.43	1.07	1.51	11.47	0.96	2.25	9.19	0.22	3.60	
(s.e.)	(0.756)	(1.474)	(0.545)	(0.500)	(0.351)	(1.115)	(0.373)	(0.588)	(0.994)	(0.158)	(0.980)	1,551
11-20%	3.15	14.26	3.99	0.38	1.41	13.86	1.17	2.38	11.49	0.01	2.16	
(s.e.)	(0.959)	(1.602)	(0.823)	(0.145)	(0.329)	(1.224)	(0.373)	(0.478)	(1.148)	(0.014)	(0.443)	2,146
21% or more	4.50	12.86	1.72	1.06	3.06	12.47	2.51	2.75	8.38	0.08	2.32	
(s.e.)	(0.837)	(1.011)	(0.299)	(0.287)	(0.705)	(0.917)	(0.542)	(0.362)	(0.799)	(0.063)	(0.459)	3,468

Table 33—Percentage of 1992 public high school graduates participating in second-level or higher specific labor market preparation courses by program area, by selected school characteristics—Continued

School characteristics	Agri- culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry						Technical & com- munications	Un- weighted Ns
						All	Construction	Mechanics & repairs	Precision production	Transpor- tation			
Percent of students taking remedial reading													
0%	4.72	11.72	2.85	0.53	1.19	12.19	0.74	1.53	10.51	0.00	1.86	
(s.e.)	(1.756)	(1.314)	(0.666)	(0.207)	(0.273)	(1.863)	(0.226)	(0.428)	(1.845)	(0.000)	(0.468)	1,713
1-5%	1.91	10.80	2.47	0.57	1.55	12.53	1.00	2.21	10.18	0.03	3.09	
(s.e.)	(0.580)	(0.869)	(0.365)	(0.187)	(0.441)	(1.014)	(0.220)	(0.294)	(1.006)	(0.025)	(0.500)	3,523
6-10%	3.15	15.06	2.26	1.05	1.33	13.43	1.40	3.40	10.47	0.11	2.57	
(s.e.)	(0.822)	(1.488)	(0.441)	(0.382)	(0.325)	(1.205)	(0.398)	(0.674)	(1.126)	(0.080)	(0.506)	2,461
11% or more	3.35	11.47	2.61	0.97	3.61	14.51	3.13	2.92	9.74	0.17	2.86	
(s.e.)	(0.899)	(1.151)	(0.603)	(0.307)	(0.961)	(1.315)	(0.761)	(0.458)	(1.176)	(0.109)	(0.604)	2,231
Percent of students in special education												
0%	1.15	9.34	1.43	0.00	0.00	11.07	0.00	0.48	10.60	0.00	0.53	
(s.e.)	(0.655)	(4.486)	(1.448)	(0.000)	(0.000)	(4.868)	(0.000)	(0.473)	(4.781)	(0.000)	(0.427)	95
1-5%	3.08	12.81	1.80	0.91	0.93	12.86	1.26	2.27	10.11	0.02	3.28	
(s.e.)	(1.208)	(1.267)	(0.376)	(0.333)	(0.217)	(1.422)	(0.574)	(0.356)	(1.329)	(0.021)	(0.698)	2,452
6-10%	3.67	11.50	3.34	0.55	2.48	14.21	1.63	2.76	11.10	0.18	2.25	
(s.e.)	(0.764)	(0.956)	(0.497)	(0.165)	(0.586)	(1.065)	(0.331)	(0.444)	(0.996)	(0.085)	(0.330)	4,018
11% or more	2.85	13.32	1.63	1.18	1.39	13.66	1.70	2.65	11.20	0.00	2.82	
(s.e.)	(0.710)	(1.355)	(0.386)	(0.402)	(0.331)	(1.372)	(0.466)	(0.489)	(1.327)	(0.000)	(0.497)	2,089

First row, first column reads: Of all 1992 public high school graduates, 2.75 percent completed at least one second-level or higher agriculture course.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Trade & industry estimates may sum to greater than the "all" column because students may have participated in more than one trade & industry program area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 34—Percentage of 1992 public high school graduates by area of specialization, by selected student characteristics

Student characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Total[2]	32.42	7.78	59.80	
(s.e.)	(1.080)	(0.428)	(1.105)	11,707
Sex				
Male	29.19	9.69	61.12	
(s.e.)	(1.342)	(0.653)	(1.389)	5,760
Female	36.05	5.71	58.24	
(s.e.)	(1.363)	(0.513)	(1.363)	5,917
Race–ethnicity				
White, non-Hispanic	34.44	7.74	57.82	
(s.e.)	(1.265)	(0.496)	(1.322)	8,269
Black, non-Hispanic	26.62	7.73	65.65	
(s.e.)	(2.328)	(1.075)	(2.418)	1,023
Hispanic	23.65	6.45	69.90	
(s.e.)	(2.360)	(1.262)	(2.380)	1,365
Asian	44.89	7.47	47.63	
(s.e.)	(3.215)	(2.870)	(3.110)	855
Native American	11.56	13.16	75.28	
(s.e.)	(3.162)	(5.376)	(5.844)	118
Total vocational Carnegie units accumulated				
0.00–1.99	58.25	(3)	41.75	
(s.e.)	(1.942)	(3)	(1.942)	3,127
2.00–3.99	38.48	(3)	61.52	
(s.e.)	(1.720)	(3)	(1.720)	3,587
4.00–5.99	19.53	5.26	75.21	
(s.e.)	(1.307)	(0.580)	(1.408)	2,565
6.00–7.99	6.70	21.31	71.99	
(s.e.)	(0.948)	(1.544)	(1.751)	1,469
8.00 or more	3.41	46.18	50.41	
(s.e.)	(1.684)	(2.483)	(2.585)	959
Total specific labor market preparation Carnegie units accumulated				
Zero	54.56	(3)	45.44	
(s.e.)	(2.002)	(3)	(2.002)	1,598
0.01–0.99	44.69	(3)	55.31	
(s.e.)	(4.037)	(3)	(4.037)	1,131
1.00–1.99	43.45	(3)	56.55	
(s.e.)	(2.206)	(3)	(2.206)	2,639
2.00–2.99	31.60	(3)	68.40	
(s.e.)	(1.957)	(3)	(1.957)	1,998
3.00–3.99	25.95	(3)	74.05	
(s.e.)	(1.782)	(3)	(1.782)	1,475
4.00 or more	9.89	31.05	59.06	
(s.e.)	(0.993)	(1.422)	(1.580)	2,866

Table 34—Percentage of 1992 public high school graduates by area of specialization, by selected student characteristics—Continued

Student characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Area of vocational program concentration[4]				
None	39.20	(3)	60.80	
(s.e.)	(1.288)	(3)	(1.288)	8,865
Agriculture	6.33	28.24	65.43	
(s.e.)	(1.711)	(4.189)	(4.309)	306
Business & office	20.36	20.57	59.08	
(s.e.)	(2.358)	(2.293)	(2.672)	898
Marketing & distribution	10.84	43.99	45.17	
(s.e.)	(2.912)	(6.227)	(6.318)	159
Health	5.63	30.68	63.69	
(s.e.)	(2.550)	(6.653)	(7.139)	79
Occupational home economics	3.63	29.66	66.71	
(s.e.)	(1.262)	(4.765)	(5.062)	195
Trade & industry	6.10	41.27	52.63	
(s.e.)	(0.815)	(2.295)	(2.299)	1,142
Technical & communications	38.29	18.21	43.50	
(s.e.)	(9.212)	(5.514)	(8.432)	63

First row, first column reads: Of all 1992 public high school graduates, 32.42 percent were classified as college preparatory.

[1] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Not applicable.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 35—Percentage of 1992 public high school graduates by area of specialization, by selected special populations characteristics

Special populations characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Total[2]	32.42	7.78	59.80	
(s.e.)	(1.080)	(0.428)	(1.105)	11,707
Socioeconomic status				
Lowest quartile	17.91	10.57	71.52	
(s.e.)	(1.357)	(1.041)	(1.660)	2,274
Second quartile	22.67	9.95	67.38	
(s.e.)	(1.341)	(0.801)	(1.598)	2,846
Third quartile	35.61	7.29	57.10	
(s.e.)	(1.777)	(0.800)	(1.759)	3,011
Highest quartile	53.00	2.58	44.42	
(s.e.)	(2.155)	(0.348)	(2.125)	3,063
Special needs status[3]				
Special needs	11.83	10.04	78.13	
(s.e.)	(1.220)	(0.752)	(1.333)	2,688
No special needs	40.74	6.51	52.75	
(s.e.)	(1.334)	(0.451)	(1.375)	8,137
Limited English proficiency status				
Limited English proficient	21.82	12.61	65.57	
(s.e.)	(4.884)	(3.837)	(4.920)	225
English proficient	34.24	7.14	58.62	
(s.e.)	(1.123)	(0.409)	(1.169)	10,349
Handicap status[4]				
Handicapped	18.23	10.69	71.08	
(s.e.)	(3.670)	(1.425)	(3.507)	611
Not handicapped	35.47	6.95	57.58	
(s.e.)	(1.200)	(0.415)	(1.238)	9,923
Secondary GPA				
3.3 or higher	60.86	2.95	36.19	
(s.e.)	(2.014)	(0.446)	(2.004)	2,238
2.6 to less than 3.3	41.50	6.55	51.95	
(s.e.)	(1.714)	(0.669)	(1.801)	3,936
1.6 to less than 2.6	18.93	10.04	71.03	
(s.e.)	(1.567)	(0.676)	(1.555)	4,928
Less than 1.6	3.67	11.28	85.05	
(s.e.)	(1.096)	(1.657)	(1.926)	600
Remedial Carnegie units accumulated[5]				
Zero	36.76	6.82	56.42	
(s.e.)	(1.109)	(0.451)	(1.154)	9,589
0.01–0.99	29.35	6.67	63.98	
(s.e.)	(7.951)	(1.511)	(7.460)	542
1.00–1.99	13.23	11.94	74.82	
(s.e.)	(2.554)	(1.646)	(2.645)	972
2.00–2.99	4.87	14.35	80.78	
(s.e.)	(1.700)	(2.818)	(3.321)	277
3.00–3.99	2.96	14.26	82.78	
(s.e.)	(1.849)	(3.740)	(4.498)	139
4.00 or more	1.10	20.14	78.75	
(s.e.)	(0.794)	(3.977)	(4.029)	188

Table 35—Percentage of 1992 public high school graduates by area of specialization, by selected special populations characteristics—Continued

Special populations characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Student parent status				
Parent	8.96	7.26	83.77	
(s.e.)	(2.394)	(1.938)	(3.147)	242
Nonparent	34.62	7.29	58.09	
(s.e.)	(1.146)	(0.425)	(1.164)	10,784
Expecting	8.15	12.82	79.03	
(s.e.)	(2.519)	(4.378)	(4.768)	137

First row, first column reads: Of all 1992 public high school graduates, 32.42 percent were classified as college preparatory.

[1] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[4] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[5] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 36—Percentage of 1992 public high school graduates by area of specialization, by selected school characteristics

School characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Total[2]	32.42	7.78	59.80	
(s.e.)	(1.080)	(0.428)	(1.105)	11,707
School size				
1-500	22.09	7.46	70.45	
(s.e.)	(2.198)	(1.133)	(2.493)	1,571
501-1,000	32.51	9.72	57.77	
(s.e.)	(2.147)	(0.945)	(2.175)	2,844
1,001-1,500	36.90	7.88	55.21	
(s.e.)	(1.662)	(0.837)	(1.699)	2,919
1,501 or more	37.18	5.77	57.04	
(s.e.)	(1.989)	(0.580)	(2.020)	2,978
Urbanicity				
Urban	31.77	7.52	60.72	
(s.e.)	(1.815)	(1.042)	(1.847)	2,377
Suburban	37.27	6.49	56.24	
(s.e.)	(1.851)	(0.623)	(1.865)	4,972
Rural	27.83	9.35	62.82	
(s.e.)	(1.647)	(0.704)	(1.859)	4,268
Absentee rate				
0-5%	31.85	6.32	61.84	
(s.e.)	(1.698)	(0.636)	(1.762)	3,538
6-10%	38.37	8.17	53.47	
(s.e.)	(1.618)	(0.648)	(1.617)	4,379
11% or more	29.30	10.21	60.49	
(s.e.)	(3.433)	(2.081)	(3.820)	833
Percent of students receiving free or reduced-price lunch				
0-5%	41.58	4.44	53.98	
(s.e.)	(2.202)	(0.598)	(2.224)	2,568
6-10%	38.58	7.97	53.45	
(s.e.)	(2.242)	(0.943)	(2.287)	1,551
11-20%	31.13	9.02	59.85	
(s.e.)	(1.847)	(1.160)	(1.978)	2,146
21% or more	26.73	9.53	63.75	
(s.e.)	(1.761)	(0.768)	(1.850)	3,468
Percent of students taking remedial reading				
0%	30.28	6.79	62.93	
(s.e.)	(2.405)	(1.090)	(2.661)	1,713
1-5%	36.89	6.50	56.62	
(s.e.)	(1.845)	(0.650)	(1.839)	3,523
6-10%	34.22	7.93	57.85	
(s.e.)	(1.910)	(0.867)	(1.995)	2,461
11% or more	30.34	10.29	59.37	
(s.e.)	(2.224)	(1.105)	(2.261)	2,231

Table 36—Percentage of 1992 public high school graduates by area of specialization, by selected school characteristics—Continued

School characteristics	College prep[1]	Vocational[1]	Other[1]	Unweighted Ns
Percent of students in special education				
0%	31.15	6.14	62.71	
(s.e.)	(8.261)	(3.628)	(10.052)	95
1-5%	36.45	7.46	56.09	
(s.e.)	(2.163)	(1.044)	(2.281)	2,452
6-10%	33.80	7.62	58.58	
(s.e.)	(1.648)	(0.644)	(1.688)	4,018
11% or more	34.76	8.10	57.14	
(s.e.)	(2.341)	(0.913)	(2.308)	2,089

First row, first column reads: Of all 1992 public high school graduates, 32.42 percent were classified as college preparatory.

[1] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and the college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 37—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected student characteristics

Student characteristics	Total concentrators[2]	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry[1]						Technical & com-munications	Un-weighted Ns
							All	Construction	Mechanics & repairs	Precision production	Transpor-tation		
Total[3]	24.36	2.53	7.72	1.52	0.64	2.10	10.25	1.27	2.03	5.40	0.02	0.61	
(s.e.)	(0.778)	(0.280)	(0.431)	(0.205)	(0.097)	(0.276)	(0.487)	(0.178)	(0.230)	(0.360)	(0.012)	(0.108)	11,707
Sex													
Male	28.13	4.11	3.58	1.42	0.09	0.84	18.56	2.32	3.94	9.31	0.03	0.91	
(s.e.)	(1.164)	(0.508)	(0.438)	(0.261)	(0.040)	(0.244)	(0.909)	(0.306)	(0.457)	(0.628)	(0.018)	(0.180)	5,760
Female	20.32	0.81	11.86	1.65	1.12	3.23	1.88	0.20	0.04	1.51	0.01	0.33	
(s.e.)	(0.960)	(0.158)	(0.704)	(0.299)	(0.163)	(0.424)	(0.406)	(0.182)	(0.024)	(0.359)	(0.010)	(0.102)	5,917
Race–ethnicity													
White, non-Hispanic	24.12	2.95	7.65	1.58	0.56	1.54	10.30	1.31	2.09	5.46	0.03	0.63	
(s.e.)	(0.917)	(0.343)	(0.508)	(0.263)	(0.087)	(0.276)	(0.566)	(0.212)	(0.285)	(0.421)	(0.017)	(0.133)	8,269
Black, non-Hispanic	24.25	1.03	8.32	2.03	0.59	5.32	6.96	1.45	0.99	3.64	0.00	0.48	
(s.e.)	(2.088)	(0.382)	(1.043)	(0.544)	(0.219)	(1.319)	(0.956)	(0.407)	(0.332)	(0.726)	(0.000)	(0.268)	1,023
Hispanic	24.13	0.97	9.16	1.11	0.63	2.80	9.32	0.87	1.25	4.28	0.00	0.96	
(s.e.)	(2.050)	(0.252)	(1.445)	(0.267)	(0.258)	(0.983)	(1.415)	(0.380)	(0.363)	(0.801)	(0.000)	(0.361)	1,365
Asian	21.13	0.38	6.98	0.61	1.34	0.09	11.95	0.52	1.71	8.09	0.00	0.11	
(s.e.)	(3.745)	(0.270)	(2.576)	(0.300)	(0.863)	(0.066)	(3.255)	(0.311)	(0.665)	(2.896)	(0.000)	(0.080)	855
Native American	35.73	3.66	2.22	0.93	0.47	4.56	25.56	0.93	7.43	14.18	0.00	0.00	
(s.e.)	(5.350)	(2.214)	(1.261)	(0.941)	(0.479)	(2.459)	(4.715)	(0.941)	(2.997)	(4.355)	(0.000)	(0.000)	118
Total vocational Carnegie units accumulated													
0.00–1.99	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	3,127
(s.e.)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
2.00–3.99	4.24	0.14	1.63	0.22	0.07	0.23	1.77	0.12	0.16	1.19	0.00	0.17	
(s.e.)	(0.437)	(0.069)	(0.268)	(0.067)	(0.035)	(0.149)	(0.262)	(0.065)	(0.065)	(0.215)	(0.000)	(0.076)	3,587
4.00–5.99	34.59	2.54	12.23	2.42	0.82	2.20	13.16	0.56	1.61	6.95	0.07	1.22	
(s.e.)	(1.711)	(0.420)	(1.019)	(0.583)	(0.221)	(0.729)	(1.047)	(0.170)	(0.350)	(0.772)	(0.051)	(0.356)	2,565
6.00–7.99	64.86	6.21	20.61	5.03	1.57	6.08	26.21	2.88	5.26	14.81	0.00	1.24	
(s.e.)	(1.753)	(1.156)	(1.574)	(1.014)	(0.366)	(1.066)	(1.816)	(0.582)	(0.772)	(1.606)	(0.000)	(0.369)	1,469
8.00 or more	84.55	13.41	22.36	3.35	2.75	9.18	40.92	8.73	11.29	19.06	0.05	1.50	
(s.e.)	(1.746)	(1.741)	(2.189)	(0.586)	(0.667)	(1.550)	(2.553)	(1.497)	(1.694)	(1.980)	(0.047)	(0.466)	959

Table 37—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected student characteristics—Continued

Student characteristics	Total[3] concentrators[2]	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry[1] All	Trade & industry[1] Construction	Trade & industry[1] Mechanics & repairs	Trade & industry[1] Precision production	Trade & industry[1] Transportation	Technical & communications	Unweighted Ns
Total specific labor market preparation Carnegie units accumulated													
Zero	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
(s.e.)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	1,598
0.01–0.99	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
(s.e.)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	1,131
1.00–1.99	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
(s.e.)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	2,639
2.00–2.99	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	
(s.e.)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	1,998
3.00–3.99	36.25	1.32	16.63	2.53	1.08	2.28	11.87	0.50	0.94	7.04	0.04	0.55	
(s.e.)	(2.007)	(0.394)	(1.332)	(0.936)	(0.378)	(0.568)	(1.296)	(0.203)	(0.268)	(1.161)	(0.041)	(0.206)	1,475
4.00 or more	79.59	9.46	22.72	4.85	2.02	7.29	35.15	4.82	7.65	18.11	0.06	2.16	
(s.e.)	(1.360)	(1.034)	(1.267)	(0.624)	(0.337)	(0.942)	(1.513)	(0.676)	(0.855)	(1.203)	(0.034)	(0.403)	2,866
Area of specialization[5]													
College prep	8.54	0.45	4.80	0.44	0.13	0.23	1.88	0.00	0.10	1.35	0.00	0.66	
(s.e.)	(0.755)	(0.134)	(0.629)	(0.123)	(0.055)	(0.077)	(0.254)	(0.000)	(0.046)	(0.220)	(0.000)	(0.239)	3,951
Vocational	(4)	9.77	20.71	8.99	2.47	7.71	54.31	10.02	15.38	28.39	0.13	1.81	
(s.e.)	(4)	(1.555)	(2.179)	(1.558)	(0.576)	(1.134)	(2.569)	(1.697)	(1.885)	(2.386)	(0.092)	(0.519)	902
Other	23.11	2.72	7.62	1.14	0.67	2.39	9.07	0.82	1.34	4.60	0.02	0.42	
(s.e.)	(0.933)	(0.361)	(0.519)	(0.244)	(0.141)	(0.419)	(0.548)	(0.145)	(0.218)	(0.424)	(0.016)	(0.091)	6,854

First row, first column reads: Of all 1992 public high school graduates, 24.36 percent were vocational concentrators, completing three or more courses in a single specific labor market preparation program area.

[1] The construction, mechanics and repairs, precision production, and transportation columns include graduates who completed three or more courses in these specific program areas. The "all" column includes graduates who completed any three or more trade & industry courses, regardless of specific program area.

[2] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. The specific program area columns may sum to more than the "total concentrators" column because some students completed 3.00 or more Carnegie units in more than one specific labor market preparation program area.

[3] Included in the total are graduates who may be missing data on particular row variables.

[4] Not applicable.

[5] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 38—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected special populations characteristics

							Trade & industry[1]						
Special populations characteristics	Total concentrators[2]	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transpor-tation	Technical & com-munications	Un-weighted Ns
Total[3]	24.36	2.53	7.72	1.52	0.64	2.10	10.25	1.27	2.03	5.40	0.02	0.61	
(s.e.)	(0.778)	(0.280)	(0.431)	(0.205)	(0.097)	(0.276)	(0.487)	(0.178)	(0.230)	(0.360)	(0.012)	(0.108)	11,707
Socioeconomic status													
Lowest quartile	33.55	3.78	10.66	2.04	0.87	3.78	13.17	2.25	2.90	6.21	0.03	0.47	
(s.e.)	(1.724)	(0.552)	(1.084)	(0.684)	(0.212)	(0.662)	(1.126)	(0.399)	(0.643)	(0.747)	(0.027)	(0.146)	2,274
Second quartile	30.00	3.32	9.38	1.21	0.70	2.32	13.32	1.79	2.42	7.15	0.06	0.76	
(s.e.)	(1.529)	(0.491)	(0.857)	(0.247)	(0.161)	(0.564)	(1.037)	(0.483)	(0.379)	(0.835)	(0.037)	(0.187)	2,846
Third quartile	21.82	2.34	7.58	1.91	0.45	1.69	8.97	0.63	1.37	5.32	0.00	0.27	
(s.e.)	(1.202)	(0.404)	(0.696)	(0.479)	(0.137)	(0.385)	(0.885)	(0.155)	(0.224)	(0.730)	(0.000)	(0.109)	3,011
Highest quartile	11.59	0.91	4.32	0.95	0.19	0.40	4.44	0.36	0.71	2.61	0.00	0.62	
(s.e.)	(0.893)	(0.177)	(0.577)	(0.221)	(0.075)	(0.128)	(0.469)	(0.126)	(0.175)	(0.339)	(0.000)	(0.210)	3,063
Special needs status[4]													
Special needs	32.59	3.06	7.14	2.41	0.82	3.33	16.62	2.41	3.64	7.67	0.04	0.74	
(s.e.)	(1.578)	(0.491)	(0.865)	(0.565)	(0.164)	(0.539)	(1.115)	(0.386)	(0.519)	(0.800)	(0.042)	(0.264)	2,688
No special needs	20.61	2.21	7.94	1.16	0.48	1.33	7.64	0.88	1.32	4.45	0.01	0.55	
(s.e.)	(0.820)	(0.290)	(0.493)	(0.152)	(0.095)	(0.258)	(0.483)	(0.182)	(0.209)	(0.383)	(0.006)	(0.110)	8,137
Limited English proficiency status													
Limited English proficient	33.70	4.74	8.45	0.35	0.18	3.30	12.75	1.49	3.02	5.78	0.00	5.87	
(s.e.)	(4.909)	(2.074)	(2.394)	(0.252)	(0.185)	(1.648)	(3.263)	(1.286)	(1.986)	(2.004)	(0.000)	(3.832)	225
English proficient	23.20	2.45	7.73	1.45	0.58	1.68	9.69	1.17	1.82	5.27	0.02	0.55	
(s.e.)	(0.796)	(0.288)	(0.458)	(0.203)	(0.085)	(0.228)	(0.493)	(0.169)	(0.235)	(0.380)	(0.012)	(0.097)	10,349
Handicap status[5]													
Handicapped	37.06	4.69	9.05	1.40	0.60	2.98	20.45	3.00	4.54	10.82	0.00	0.11	
(s.e.)	(3.265)	(1.216)	(2.547)	(0.586)	(0.269)	(0.811)	(2.673)	(1.012)	(0.927)	(2.472)	(0.000)	(0.108)	611
Not handicapped	22.49	2.37	7.65	1.43	0.57	1.63	9.02	1.08	1.63	4.91	0.02	0.67	
(s.e.)	(0.803)	(0.278)	(0.456)	(0.208)	(0.087)	(0.235)	(0.480)	(0.167)	(0.238)	(0.356)	(0.013)	(0.125)	9,923
Secondary GPA													
3.3 or higher	12.97	1.65	6.52	0.63	0.33	0.18	3.20	0.42	0.48	1.99	0.00	0.76	
(s.e.)	(0.959)	(0.376)	(0.696)	(0.200)	(0.139)	(0.097)	(0.468)	(0.193)	(0.195)	(0.358)	(0.000)	(0.270)	2,238
2.6 to less than 3.3	19.84	2.23	7.79	1.13	0.50	1.86	6.73	0.80	0.89	4.07	0.03	0.47	
(s.e.)	(1.122)	(0.351)	(0.632)	(0.221)	(0.179)	(0.498)	(0.632)	(0.304)	(0.204)	(0.504)	(0.022)	(0.129)	3,936
1.6 to less than 2.6	30.62	3.08	8.12	1.88	0.87	2.76	14.61	1.72	3.36	7.26	0.02	0.69	
(s.e.)	(1.191)	(0.367)	(0.650)	(0.316)	(0.155)	(0.396)	(0.841)	(0.242)	(0.414)	(0.607)	(0.022)	(0.166)	4,928
Less than 1.6	34.83	2.60	7.90	3.52	0.54	3.97	17.07	2.85	2.77	8.42	0.00	0.33	
(s.e.)	(3.240)	(0.895)	(2.053)	(1.855)	(0.233)	(1.298)	(2.323)	(0.782)	(0.752)	(2.066)	(0.000)	(0.277)	600

Table 38—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected special populations characteristics—Continued

							Trade & industry[1]						
Special populations characteristics	Total concentrators[2]	Agri- culture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transpor- tation	Technical & com- munications	Un- weighted Ns
Remedial Carnegie units accumulated[6]													
Zero	22.25	2.19	8.29	1.48	0.56	1.47	8.43	0.92	1.58	4.71	0.02	0.66	
(s.e.)	(0.801)	(0.278)	(0.516)	(0.194)	(0.091)	(0.254)	(0.474)	(0.172)	(0.203)	(0.359)	(0.011)	(0.125)	9,589
0.01-0.99	23.81	1.38	5.54	2.75	0.90	4.35	9.40	0.91	2.82	4.60	0.00	0.27	
(s.e.)	(3.806)	(0.587)	(1.328)	(1.898)	(0.392)	(1.561)	(1.762)	(0.389)	(1.109)	(0.929)	(0.000)	(0.147)	542
1.00-1.99	34.00	4.34	6.61	1.39	0.51	3.51	18.02	1.77	3.31	9.45	0.06	0.65	
(s.e.)	(2.507)	(1.107)	(1.096)	(0.369)	(0.201)	(0.641)	(2.130)	(0.450)	(0.828)	(1.907)	(0.056)	(0.356)	972
2.00-2.99	34.60	5.49	4.09	0.87	1.10	3.16	21.54	3.86	4.52	10.16	0.00	0.50	
(s.e.)	(4.593)	(1.794)	(1.332)	(0.417)	(0.513)	(1.481)	(3.389)	(1.243)	(1.653)	(2.324)	(0.000)	(0.495)	277
3.00-3.99	38.51	5.61	3.49	0.00	1.49	6.15	25.81	4.91	7.11	7.93	0.00	0.00	
(s.e.)	(5.497)	(2.390)	(1.490)	(0.000)	(1.487)	(3.508)	(4.923)	(2.399)	(2.989)	(2.543)	(0.000)	(0.000)	139
4.00 or more	49.52	6.58	3.04	2.19	2.62	11.56	30.16	9.29	6.35	10.90	0.00	0.00	
(s.e.)	(4.908)	(2.495)	(1.300)	(1.179)	(1.838)	(3.449)	(4.852)	(3.072)	(2.048)	(3.426)	(0.000)	(0.000)	188
Student parent status													
Parent	29.54	1.25	10.62	1.45	1.92	9.59	4.72	1.05	0.92	1.39	0.00	0.26	
(s.e.)	(5.189)	(0.647)	(2.331)	(1.193)	(0.823)	(4.394)	(1.344)	(0.648)	(0.698)	(0.603)	(0.000)	(0.258)	242
Nonparent	23.23	2.51	7.61	1.49	0.49	1.67	9.85	1.22	1.79	5.34	0.02	0.55	
(s.e.)	(0.790)	(0.287)	(0.439)	(0.219)	(0.071)	(0.245)	(0.511)	(0.181)	(0.217)	(0.384)	(0.014)	(0.099)	10,784
Expecting	32.88	3.48	9.84	1.76	1.59	4.27	14.57	2.13	2.65	5.27	0.00	0.00	
(s.e.)	(5.521)	(1.821)	(4.277)	(1.035)	(1.135)	(2.262)	(3.493)	(1.118)	(1.434)	(2.139)	(0.000)	(0.000)	137

First row, first column reads: Of all 1992 public high school graduates, 24.36 percent were vocational concentrators, completing three or more courses in a single specific labor market preparation program area.

[1] The construction, mechanics and repairs, precision production, and transportation columns include graduates who completed three or more courses in these specific program areas. The "all" column includes graduates who completed any three or more trade & industry courses, regardless of specific program area.

[2] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. The specific program area columns may sum to more than the "total concentrators" column because some students completed 3.00 or more Carnegie units in more than one specific labor market preparation program area.

[3] Included in the total are graduates who may be missing data on particular row variables.

[4] Students with special needs are defined as having one or more of the following: a handicap, limited English proficiency, or a grade-point average (GPA) of 2.0 or less on a 4-point scale.

[5] In this table, handicap status was constructed from teacher and parent responses. An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-92* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education), forthcoming.

[6] Remedial Carnegie units accumulated is defined as the sum of units completed in remedial English, math, and social studies.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 39—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected school characteristics

							Trade & industry[1]						
School characteristics	Total concentrators[2]	Agri-culture	Business & office	Marketing & distribution	Health	Occupational home economics	All	Construction	Mechanics & repairs	Precision production	Transpor-tation	Technical & com-munications	Un-weighted Ns
Total[3]	24.36	2.53	7.72	1.52	0.64	2.10	10.25	1.27	2.03	5.40	0.02	0.61	
(s.e.)	(0.778)	(0.280)	(0.431)	(0.205)	(0.097)	(0.276)	(0.487)	(0.178)	(0.230)	(0.360)	(0.012)	(0.108)	11,707
School size													
1-500	30.79	8.68	9.18	0.31	0.54	1.15	12.28	1.57	2.92	5.50	0.00	0.58	
(s.e.).	(2.338)	(1.348)	(1.235)	(0.124)	(0.256)	(0.281)	(1.634)	(0.596)	(0.911)	(1.264)	(0.000)	(0.339)	1,571
501-1,000	26.28	3.24	9.51	1.20	0.47	1.89	10.48	1.47	2.29	5.80	0.04	0.46	
(s.e.)	(1.422)	(0.718)	(0.920)	(0.356)	(0.158)	(0.418)	(0.787)	(0.270)	(0.369)	(0.621)	(0.044)	(0.165)	2,844
1,001-1,500	23.16	1.36	7.23	1.98	0.75	2.26	10.09	1.38	1.56	5.63	0.03	0.66	
(s.e.)	(1.408)	(0.265)	(0.773)	(0.488)	(0.176)	(0.593)	(0.878)	(0.459)	(0.272)	(0.651)	(0.026)	(0.203)	2,919
1,501 or more	21.04	0.61	6.64	1.79	0.87	2.52	8.32	0.55	1.51	4.05	0.02	0.76	
(s.e.)	(1.333)	(0.146)	(0.683)	(0.274)	(0.233)	(0.640)	(0.781)	(0.174)	(0.304)	(0.459)	(0.018)	(0.268)	2,978
Urbanicity													
Urban	21.43	0.26	7.75	2.20	0.54	1.64	8.37	0.84	0.92	4.72	0.02	1.01	
(s.e.)	(1.489)	(0.084)	(0.969)	(0.592)	(0.196)	(0.330)	(1.079)	(0.454)	(0.198)	(0.816)	(0.018)	(0.302)	2,377
Suburban	20.93	1.25	6.49	1.52	0.63	2.31	9.09	1.09	1.76	4.95	0.02	0.55	
(s.e.)	(1.170)	(0.284)	(0.574)	(0.299)	(0.129)	(0.503)	(0.619)	(0.212)	(0.253)	(0.463)	(0.022)	(0.150)	4,972
Rural	30.23	5.49	9.60	1.00	0.64	2.00	12.58	1.76	2.96	6.23	0.02	0.38	
(s.e.)	(1.272)	(0.675)	(0.829)	(0.213)	(0.143)	(0.432)	(0.927)	(0.333)	(0.547)	(0.712)	(0.018)	(0.147)	4,268
Absentee rate													
0-5%	25.22	4.98	7.83	1.61	0.51	1.76	9.82	0.97	1.58	5.34	0.00	0.33	
(s.e.)	(1.406)	(0.802)	(0.739)	(0.345)	(0.160)	(0.285)	(0.763)	(0.249)	(0.270)	(0.574)	(0.000)	(0.150)	3,538
6-10%	23.34	1.73	7.83	1.54	0.81	1.87	9.80	1.44	1.72	5.50	0.05	0.66	
(s.e.)	(1.110)	(0.299)	(0.621)	(0.333)	(0.152)	(0.434)	(0.767)	(0.344)	(0.350)	(0.609)	(0.034)	(0.158)	4,379
11% or more	29.75	2.12	10.92	1.37	0.94	0.95	12.82	0.83	3.62	4.75	0.06	1.23	
(s.e.)	(2.922)	(0.633)	(1.861)	(0.523)	(0.557)	(0.398)	(1.885)	(0.439)	(0.914)	(0.910)	(0.058)	(0.735)	833
Percent of students receiving free or reduced-price lunch													
0-5%	18.71	1.40	5.57	1.67	0.32	1.89	8.01	0.72	1.94	4.10	0.05	0.58	
(s.e.)	(1.445)	(0.358)	(0.694)	(0.381)	(0.114)	(0.621)	(0.788)	(0.190)	(0.348)	(0.596)	(0.046)	(0.258)	2,568
6-10%	24.12	2.49	9.49	0.62	0.81	2.15	9.24	0.91	1.40	5.30	0.05	0.18	
(s.e.)	(1.606)	(0.662)	(1.207)	(0.238)	(0.263)	(0.453)	(0.831)	(0.300)	(0.338)	(0.684)	(0.053)	(0.094)	1,551
11-20%	24.74	3.62	7.47	2.56	0.46	1.21	10.56	1.16	1.45	6.58	0.00	0.49	
(s.e.)	(1.451)	(0.961)	(0.819)	(0.684)	(0.142)	(0.268)	(1.131)	(0.364)	(0.383)	(0.933)	(0.000)	(0.210)	2,146
21% or more	28.54	3.72	8.93	0.99	0.93	2.68	11.46	1.77	2.54	5.13	0.02	0.92	
(s.e.)	(1.418)	(0.635)	(0.789)	(0.212)	(0.234)	(0.604)	(0.904)	(0.464)	(0.463)	(0.550)	(0.015)	(0.230)	3,468

Table 39—Percentage of 1992 public high school graduates completing three or more courses in a specific labor market preparation program by program area, by selected school characteristics—Continued

School characteristics	Total concentrators[2]	Agri- culture	Business & office	Marketing & distribution	Health	Occupational home economics	Trade & industry[1]					Technical & com- munications	Un- weighted Ns
							All	Construction	Mechanics & repairs	Precision production	Transpor- tation		
Percent of students taking remedial reading													
0%	22.42	3.77	7.22	1.78	0.66	1.83	8.29	0.97	1.40	4.81	0.08	0.16	
(s.e.)	(1.755)	(0.754)	(1.133)	(0.540)	(0.248)	(0.522)	(0.951)	(0.253)	(0.411)	(0.784)	(0.076)	(0.098)	1,713
1-5%	20.73	1.57	6.86	1.28	0.59	1.25	9.22	0.90	1.61	5.62	0.00	0.58	
(s.e.)	(1.136)	(0.383)	(0.621)	(0.239)	(0.151)	(0.241)	(0.649)	(0.202)	(0.262)	(0.536)	(0.000)	(0.164)	3,523
6-10%	26.38	3.61	9.57	1.13	0.64	1.73	9.97	1.46	2.08	4.87	0.00	0.61	
(s.e.)	(1.558)	(0.843)	(1.057)	(0.293)	(0.184)	(0.379)	(1.096)	(0.366)	(0.600)	(0.844)	(0.000)	(0.288)	2,461
11% or more	30.02	2.78	8.48	1.71	0.81	3.64	13.41	1.84	2.77	5.91	0.05	0.93	
(s.e.)	(1.737)	(0.732)	(0.874)	(0.554)	(0.267)	(0.942)	(1.195)	(0.609)	(0.412)	(0.825)	(0.038)	(0.291)	2,231
Percent of students in special education													
0%	15.47	0.26	8.73	0.00	0.00	0.00	6.00	0.00	0.48	5.52	0.00	0.48	
(s.e.)	(5.700)	(0.265)	(3.940)	(0.000)	(0.000)	(0.000)	(3.602)	(0.000)	(0.473)	(3.498)	(0.000)	(0.486)	95
1-5%	23.71	2.13	8.53	1.11	0.67	1.60	10.04	1.45	1.57	5.23	0.02	0.64	
(s.e.)	(1.687)	(0.432)	(0.998)	(0.377)	(0.228)	(0.461)	(1.020)	(0.573)	(0.315)	(0.632)	(0.021)	(0.287)	2,452
6-10%	24.40	3.32	7.11	2.01	0.65	1.64	10.52	1.09	2.29	5.58	0.05	0.80	
(s.e.)	(1.064)	(0.646)	(0.562)	(0.387)	(0.158)	(0.229)	(0.741)	(0.233)	(0.430)	(0.571)	(0.039)	(0.205)	4,018
11% or more	26.25	3.02	8.69	0.93	0.86	2.49	10.50	1.11	1.66	5.67	0.00	0.19	
(s.e.)	(1.769)	(0.624)	(1.002)	(0.271)	(0.242)	(0.803)	(1.114)	(0.292)	(0.317)	(0.958)	(0.000)	(0.081)	2,089

First row, first column reads: Of all 1992 public high school graduates, 24.36 percent were vocational concentrators, completing three or more courses in a single specific labor market preparation program area.

[1] The construction, mechanics and repairs, precision production, and transportation columns include graduates who completed three or more courses in these specific program areas. The "all" column includes graduates who completed any three or more trade & industry courses, regardless of specific program area.

[2] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. The specific program area columns may sum to more than the "total concentrators" column because some students completed 3.00 or more Carnegie units in more than one specific labor market preparation program area.

[3] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 40—Percentage of 1992 public high school graduates meeting the New Basics standards,[1] by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	4 years English	3 years math	3 years science	3 years social studies	0.5 years computer science	All standards[2]	Un-weighted Ns
Total[3]	83.19	72.82	55.95	87.41	37.13	17.23	
(s.e.)	(0.843)	(0.965)	(1.146)	(0.797)	(1.149)	(0.873)	11,707
Total vocational Carnegie units accumulated							
0.00–1.99	86.91	88.04	78.79	91.50	29.35	19.38	
(s.e.)	(1.053)	(1.257)	(1.703)	(1.060)	(2.179)	(2.016)	3,127
2.00–3.99	86.79	81.38	62.52	90.42	39.85	22.27	
(s.e.)	(0.977)	(1.465)	(2.052)	(0.979)	(1.764)	(1.332)	3,587
4.00–5.99	81.44	65.65	46.13	85.40	43.42	16.37	
(s.e.)	(1.539)	(1.903)	(1.860)	(1.573)	(1.843)	(1.209)	2,565
6.00–7.99	77.66	54.29	32.12	83.35	37.28	8.76	
(s.e.)	(1.911)	(2.243)	(1.881)	(1.639)	(1.929)	(1.151)	1,469
8.00 or more	71.72	41.79	23.36	75.47	34.43	7.31	
(s.e.)	(2.461)	(2.639)	(2.893)	(2.405)	(2.857)	(2.245)	959
Area of specialization[4]							
College prep	100.00	98.57	100.00	92.96	43.17	39.68	
(s.e.)	(0.000)	(0.362)	(0.000)	(0.926)	(1.893)	(1.889)	3,951
Vocational	77.15	51.83	28.01	80.03	27.83	7.93	
(s.e.)	(2.258)	(2.776)	(2.817)	(2.177)	(2.479)	(1.993)	902
Other	74.87	61.60	35.70	85.37	35.07	6.27	
(s.e.)	(1.233)	(1.320)	(1.199)	(1.021)	(1.337)	(0.484)	6,854
Area of vocational program concentration[5]							
None	84.72	78.27	62.55	89.10	36.99	19.08	
(s.e.)	(0.850)	(1.020)	(1.302)	(0.798)	(1.275)	(0.993)	8,665
Agriculture	78.82	50.82	34.58	73.42	25.06	4.60	
(s.e.)	(3.631)	(4.188)	(4.097)	(4.157)	(4.343)	(1.665)	306
Business & office	80.84	65.59	47.67	85.62	62.60	22.52	
(s.e.)	(2.368)	(2.634)	(2.783)	(1.766)	(2.715)	(2.763)	898
Marketing & distribution	86.59	59.42	32.28	87.66	20.27	5.97	
(s.e.)	(3.038)	(6.509)	(4.800)	(3.222)	(4.166)	(2.042)	159
Health	73.99	47.78	29.26	79.92	25.49	6.57	
(s.e.)	(5.802)	(7.411)	(6.097)	(5.065)	(5.764)	(3.004)	79
Occupational home economics	74.11	40.55	16.08	86.87	16.61	1.22	
(s.e.)	(5.173)	(6.161)	(4.954)	(3.326)	(3.021)	(0.601)	195
Trade & industry	76.16	51.63	29.28	79.34	26.56	6.51	
(s.e.)	(1.937)	(2.345)	(2.472)	(2.159)	(2.349)	(1.426)	1,142
Technical & communications	86.35	77.45	65.87	94.10	72.03	32.92	
(s.e.)	(4.675)	(6.269)	(7.710)	(3.196)	(8.060)	(8.922)	63

First row, first column reads: Of all 1992 public high school graduates, 83.19 percent completed the New Basics standard of 4 years of English.

[1] National Commission on Excellence in Education, *A Nation At Risk* (Cambridge, MA: USA Research, 1984).

[2] The table includes all standards recommended by *A Nation at Risk* for high school graduates who are not college bound.

[3] Included in the total are graduates who may be missing data on particular row variables.

[4] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[5] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates sum to greater than 100 percent because students generally satisfied more than one of the New Basics standards; however, only 17.23 percent of students satisfied all of the standards included in the table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 41—Average number of Carnegie units accumulated in academic subjects by 1992 public high school graduates, by number of Carnegie units accumulated in vocational education and by sex and race–ethnicity

Total vocational weighted Carnegie units accumulated	All English		AP or honors English		All math		Algebra 1 or higher		All science		Chemistry or physics		Social studies		Fine arts		Foreign language		Un-
	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Ns
Total[2]	4.18		0.14		3.38		2.41		2.88		0.85		3.58		1.62		1.67		
(s.e.)	(0.018)		(0.008)		(0.021)		(0.030)		(0.027)		(0.019)		(0.023)		(0.034)		(0.034)		11,707
All graduates																			
0.00–1.99	4.30	100.0	0.27	100.0	3.78	100.0	3.22	100.0	3.41	100.0	1.37	100.0	3.76	100.0	2.28	100.0	2.63	100.0	
(s.e.)	(0.024)		(0.017)		(0.039)		(0.039)		(0.035)		(0.029)		(0.034)		(0.067)		(0.058)		3,127
2.00–3.99	4.25	98.8	0.15	55.6	3.57	94.4	2.68	83.2	3.00	88.0	0.97	70.8	3.70	98.4	1.80	78.9	1.88	71.5	
(s.e.)	(0.030)		(0.013)		(0.049)		(0.049)		(0.046)		(0.034)		(0.043)		(0.072)		(0.048)		3,587
4.00–5.99	4.16	96.7	0.09	33.3	3.21	84.9	2.08	64.6	2.67	78.3	0.60	43.8	3.51	93.4	1.28	56.1	1.24	47.1	
(s.e.)	(0.036)		(0.015)		(0.046)		(0.046)		(0.037)		(0.027)		(0.035)		(0.046)		(0.046)		2,565
6.00–7.99	4.02	93.5	0.03	11.1	2.92	77.2	1.52	47.2	2.32	68.0	0.35	25.5	3.31	88.0	1.01	44.3	0.75	28.5	
(s.e.)	(0.034)		(0.006)		(0.050)		(0.050)		(0.036)		(0.023)		(0.032)		(0.048)		(0.037)		1,469
8.00 or more	3.85	89.5	0.03	11.1	2.62	69.3	1.11	34.5	2.14	62.8	0.21	15.3	3.14	83.5	0.71	31.1	0.44	16.7	
(s.e.)	(0.041)		(0.011)		(0.067)		(0.067)		(0.046)		(0.031)		(0.051)		(0.043)		(0.046)		959
Sex																			
Male																			
0.00–1.99	4.23	100.0	0.25	100.0	3.80	100.0	3.16	100.0	3.48	100.0	1.46	100.0	3.72	100.0	2.05	100.0	2.36	100.0	
(s.e.)	(0.035)		(0.029)		(0.033)		(0.051)		(0.045)		(0.041)		(0.039)		(0.074)		(0.049)		1,432
2.00–3.99	4.23	100.0	0.13	52.0	3.60	94.7	2.64	83.5	3.03	87.1	1.00	68.5	3.72	100.0	1.65	80.5	1.74	73.7	
(s.e.)	(0.054)		(0.017)		(0.044)		(0.082)		(0.063)		(0.049)		(0.068)		(0.122)		(0.081)		1,757
4.00–5.99	4.09	96.7	0.06	24.0	3.20	84.2	2.02	63.9	2.69	77.3	0.64	43.8	3.50	94.1	1.09	53.2	1.04	44.1	
(s.e.)	(0.048)		(0.012)		(0.052)		(0.058)		(0.048)		(0.039)		(0.048)		(0.059)		(0.056)		244
6.00–7.99	3.99	94.3	0.02	8.0	2.91	76.6	1.52	48.1	2.31	66.4	0.35	24.0	3.28	88.2	0.88	42.9	0.60	25.4	
(s.e.)	(0.038)		(0.007)		(0.047)		(0.078)		(0.052)		(0.030)		(0.042)		(0.067)		(0.040)		774
8.00 or more	3.83	90.5	0.02	8.0	2.60	68.4	0.98	31.0	2.09	60.1	0.20	13.7	3.08	82.8	0.65	31.7	0.31	13.1	
(s.e.)	(0.0[illegible]8)		(0.005)		(0.053)		(0.062)		(0.056)		(0.031)		(0.055)		(0.045)		(0.047)		543
Female																			
0.00–1.99	4.34	100.0	0.029	100.0	3.77	100.0	3.26	100.0	3.36	100.0	1.30	100.0	3.79	100.0	2.46	100.0	2.83	100.0	
(s.e.)	(0.029)		(0.020)		(0.035)		(0.053)		(0.045)		(0.036)		(0.047)		(0.100)		(0.082)		1,694
2.00–3.99	4.27	98.4	0.17	58.6	3.54	93.9	2.73	83.7	2.97	88.4	0.95	73.1	3.69	97.4	1.93	78.5	2.04	72.1	
(s.e.)	(0.026)		(0.015)		(0.035)		(0.047)		(0.060)		(0.046)		(0.046)		(0.061)		(0.042)		1,826
4.00–5.99	4.24	97.7	0.12	41.4	3.23	85.7	2.17	66.6	2.67	79.5	0.58	44.6	3.53	93.1	1.46	59.3	1.48	52.3	
(s.e.)	(0.048)		(0.027)		(0.047)		(0.060)		(0.045)		(0.032)		(0.043)		(0.059)		(0.068)		1,303
6.00–7.99	4.05	93.3	0.04	13.8	2.97	78.8	1.58	48.5	2.35	69.9	0.35	26.9	3.35	88.4	1.15	46.7	0.94	33.2	
(s.e.)	(0.047)		(0.009)		(0.043)		(0.071)		(0.042)		(0.037)		(0.039)		(0.061)		(0.059)		687
8.00 or more	3.87	89.2	0.05	17.2	2.62	69.5	1.30	39.9	2.23	66.4	0.23	17.7	3.22	85.0	0.81	32.9	0.61	21.6	
(s.e.)	(0.049)		(0.023)		(0.063)		(0.116)		(0.064)		(0.053)		(0.071)		(0.067)		(0.074)		407

Table 41—Average number of Carnegie units accumulated in academic subjects by 1992 public high school graduates, by number of Carnegie units accumulated in vocational education and by sex and race-ethnicity—Continued

Total vocational Carnegie units accumulated	All English		AP or honors English		All math		Algebra 1 or higher		All science		Chemistry or physics		Social studies		Fine arts		Foreign language		Un-weighted Ns
	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	
Race-ethnicity																			
White, non-Hispanic																			
1.00-1.99	4.42	100.0	0.12	100.0	3.73	100.0	2.86	100.0	2.93	100.0	0.95	100.0	3.49	100.0	1.92	100.0	2.46	100.0	
(s.e.)	(0.124)		(0.025)		(0.072)		(0.096)		(0.071)		(0.047)		(0.075)		(0.163)		(0.099)		316
2.00-3.99	4.29	97.1	0.14	116.7	3.48	93.3	2.31	80.8	2.73	93.2	0.77	81.1	3.41	97.7	1.76	91.7	1.88	76.4	
(s.e.)	(0.059)		(0.038)		(0.081)		(0.121)		(0.079)		(0.106)		(0.051)		(0.114)		(0.088)		455
4.00-5.99	4.14	93.7	0.17	141.7	3.26	87.4	1.88	65.7	2.48	84.6	0.47	49.5	3.38	96.8	1.17	60.9	1.63	66.3	
(s.e.)	(0.069)		(0.114)		(0.085)		(0.126)		(0.061)		(0.056)		(0.070)		(0.117)		(0.105)		350
6.00-7.99	4.27	96.6	0.02	16.7	2.88	77.2	1.38	48.3	2.25	76.8	0.31	32.6	3.18	91.1	0.76	39.6	1.06	43.1	
(s.e.)	(0.096)		(0.009)		(0.093)		(0.088)		(0.066)		(0.052)		(0.094)		(0.095)		(0.083)		164
8.00 or more	4.02	91.0	0.01	8.3	2.80	75.1	0.92	32.2	2.06	70.3	0.10	10.5	3.30	94.6	0.75	39.1	0.63	25.6	
(s.e.)	(0.109)		(0.015)		(0.105)		(0.120)		(0.106)		(0.036)		(0.128)		(0.104)		(0.097)		80
Black, non-Hispanic																			
0.00-1.99	4.33	100.0	0.13	100.0	3.76	100.0	2.68	100.0	3.25	100.0	1.03	100.0	3.77	100.0	2.17	100.0	2.00	100.0	
(s.e.)	(0.066)		(0.030)		(0.088)		(0.136)		(0.084)		(0.110)		(0.135)		(0.142)		(0.155)		180
2.00-3.99	4.29	99.1	0.17	130.8	3.54	94.1	2.31	86.2	2.87	88.3	0.80	77.7	3.74	99.2	1.96	90.3	1.53	76.5	
(s.e.)	(0.081)		(0.050)		(0.081)		(0.119)		(0.113)		(0.090)		(0.092)		(0.339)		(0.137)		329
4.00-5.99	4.18	96.5	0.08	61.5	3.30	87.8	1.87	69.8	2.63	80.9	0.50	48.5	3.51	93.1	0.97	44.7	1.04	52.0	
(s.e.)	(0.129)		(0.020)		(0.099)		(0.120)		(0.090)		(0.070)		(0.099)		(0.112)		(0.137)		298
6.00-7.99	4.02	92.8	0.04	30.8	2.97	79.0	1.33	49.6	2.33	71.7	0.39	37.9	3.40	90.2	0.71	32.7	0.78	39.0	
(s.e.)	(0.077)		(0.017)		(0.090)		(0.156)		(0.102)		(0.101)		(0.075)		(0.083)		(0.137)		150
8.00 or more	3.83	88.5	0.01	7.7	2.71	72.1	0.96	35.8	2.01	61.8	0.10	9.7	3.04	80.6	0.73	33.6	0.24	12.0	
(s.e.)	(0.069)		(0.014)		(0.152)		(0.214)		(0.093)		(0.052)		(0.134)		(0.176)		(0.077)		66
Hispanic																			
0.00-1.99	4.29	100.0	0.30	100.0	3.78	100.0	3.31	100.0	3.46	100.0	1.41	100.0	3.79	100.0	2.36	100.0	2.67	100.0	
(s.e.)	(0.025)		(0.021)		(0.031)		(0.046)		(0.041)		(0.032)		(0.039)		(0.082)		(0.068)		2,236
2.00-3.99	4.24	98.8	0.15	50.0	3.57	94.4	2.78	84.0	3.04	87.9	1.01	71.6	3.74	98.7	1.79	75.8	1.93	72.3	
(s.e.)	(0.038)		(0.013)		(0.036)		(0.061)		(0.058)		(0.040)		(0.054)		(0.071)		(0.059)		2,477
4.00-5.99	4.17	97.2	0.09	30.0	3.18	84.1	2.17	65.6	2.73	78.9	0.65	46.1	3.54	93.4	1.37	58.1	1.22	45.7	
(s.e.)	(0.042)		(0.012)		(0.046)		(0.052)		(0.047)		(0.033)		(0.043)		(0.058)		(0.056)		1,703
6.00-7.99	3.98	92.8	0.03	10.0	2.96	78.3	1.64	49.5	2.35	67.9	0.35	24.8	3.31	87.3	1.09	46.2	0.71	26.6	
(s.e.)	(0.040)		(0.007)		(0.040)		(0.059)		(0.044)		(0.025)		(0.038)		(0.060)		(0.039)		1,074
8.00 or more	3.82	89.0	0.03	10.0	2.57	68.0	1.12	33.8	2.17	62.7	0.22	15.6	3.14	82.8	0.72	30.5	0.45	16.9	
(s.e.)	(0.044)		(0.008)		(0.046)		(0.067)		(0.049)		(0.031)		(0.057)		(0.048)		(0.053)		779

Table 41—Average number of Carnegie units accumulated in academic subjects by 1992 public high school graduates, by number of Carnegie units accumulated in vocational education by sex and race-ethnicity—Continued

Total vocational Carnegie units accumulated	All English		AP or honors English		All math		Algebra 1 or higher		All science		Chemistry or physics		Social studies		Fine arts		Foreign language		Unweighted Ns
	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	Units	Percent[1]	
Asian																			
0.00-1.99	4.20	100.0	0.34	100.0	3.92	100.0	3.35	100.0	3.76	100.0	1.81	100.0	3.81	100.0	1.85	100.0	3.27	100.0	
(s.e.)	(0.074)		(0.039)		(0.066)		(0.108)		(0.098)		(0.095)		(0.069)		(0.109)		(0.114)		366
2.00-3.99	4.12	98.1	0.15	44.1	3.96	101.0	3.23	96.4	3.44	91.5	1.42	78.5	3.48	91.3	1.26	68.1	2.61	79.8	
(s.e.)	(0.077)		(0.026)		(0.069)		(0.103)		(0.092)		(0.088)		(0.076)		(0.102)		(0.109)		273
4.00-5.99	4.14	98.6	0.05	14.7	3.38	86.2	2.47	73.7	2.65	70.5	0.82	45.3	3.39	89.0	1.06	57.3	1.90	58.1	
(s.e.)	(0.117)		(0.020)		(0.155)		(0.227)		(0.138)		(0.134)		(0.106)		(0.137)		(0.166)		157
6.00-7.99	3.85	91.7	0.02	5.9	2.63	67.1	1.28	38.2	2.22	59.0	0.25	13.8	3.39	89.0	1.12	60.5	0.75	22.9	
(s.e.)	(0.161)		(0.017)		(0.144)		(0.275)		(0.205)		(0.081)		(0.143)		(0.297)		(0.159)		47
8.00 or more	—		—		—		—		—		—		—		—		—		
(s.e.)	—		—		—		—		—		—		—		—		—		12
Native American																			
0.00-1.99	—		—		—		—		—		—		—		—		—		
(s.e.)	—		—		—		—		—		—		—		—		—		15
2.00-3.99	4.22		0.10		3.53		2.25		2.83		0.88		3.73		1.69		1.32		
(s.e.)	(0.139)		(0.073)		(0.165)		(0.165)		(0.175)		(0.191)		(0.146)		(0.282)		(0.194)		38
4.00-5.99	4.03		0.01		3.07		1.39		2.46		0.32		3.64		1.31		0.71		
(s.e.)	(0.143)		(0.008)		(0.198)		(0.220)		(0.139)		(0.087)		(0.176)		(0.216)		(0.127)		39
6.00-7.99	—		—		—		—		—		—		—		—		—		
(s.e.)	—		—		—		—		—		—		—		—		—		18
8.00 or more	—		—		—		—		—		—		—		—		—		
(s.e.)	—		—		—		—		—		—		—		—		—		8

Fifth row, first and second columns read: 1992 public high school graduates accumulating more than 1.99 and up to 3.99 units in vocational education earned on average 4.25 Carnegie units in English. These 4.25 units represent 98.8 percent of the 4.30 Carnegie units earned by graduates who had accumulated 1.99 or fewer vocational credits.

—Sample size was too small for reliable estimate.

[1] Academic Carnegie units earned by graduates with greater than 1.99 Carnegie units in vocational education are expressed as a percent of the academic Carnegie units earned by graduates with 1.99 or fewer Carnegie units in vocational education.

[2] Included in the total are graduates who may be missing data on particular row variables.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 42—Average number of Carnegie units accumulated in academic subjects by 1992 public high school graduates, by areas of specialization and vocational concentration

Participation in vocational education	All English	AP or honors English	All math	Algebra 1 or higher	All science	Chemistry or physics	Social studies	Fine arts	Foreign language	Unweighted Ns
Total[1]	4.18	0.14	3.38	2.41	2.88	0.85	3.58	1.62	1.67	
(s.e.)	(0.018)	(0.008)	(0.021)	(0.030)	(0.027)	(0.019)	(0.023)	(0.034)	(0.034)	11,707
Area of specialization[2]										
College prep	4.39	0.30	3.99	3.57	3.74	1.61	3.71	1.65	2.76	
(s.e.)	(0.018)	(0.017)	(0.021)	(0.024)	(0.043)	(0.029)	(0.034)	(0.064)	(0.034)	3,951
Vocational	3.94	0.05	2.83	1.34	2.28	0.32	3.18	0.80	0.64	
(s.e.)	(0.036)	(0.010)	(0.046)	(0.071)	(0.044)	(0.030)	(0.041)	(0.047)	(0.048)	902
Other	4.09	0.07	3.13	1.91	2.48	0.50	3.55	1.71	1.21	
(s.e.)	(0.026)	(0.007)	(0.025)	(0.033)	(0.020)	(0.018)	(0.029)	(0.040)	(0.040)	6,854
Area of vocational program concentration[3]										
None	4.23	0.17	3.52	2.64	3.02	0.98	3.67	1.82	1.93	
(s.e.)	(0.020)	(0.010)	(0.022)	(0.033)	(0.029)	(0.022)	(0.026)	(0.042)	(0.040)	8,865
Agriculture	4.02	0.04	2.83	1.45	2.38	0.39	3.14	0.79	0.51	
(s.e.)	(0.088)	(0.012)	(0.093)	(0.106)	(0.069)	(0.056)	(0.073)	(0.094)	(0.060)	306
Business & office	4.08	0.12	3.17	2.20	2.64	0.58	3.39	1.08	1.28	
(s.e.)	(0.043)	(0.021)	(0.050)	(0.062)	(0.045)	(0.038)	(0.041)	(0.062)	(0.054)	898
Marketing & distribution	4.11	0.05	3.07	1.65	2.27	0.34	3.46	1.23	1.09	
(s.e.)	(0.048)	(0.017)	(0.100)	(0.190)	(0.148)	(0.049)	(0.081)	(0.123)	(0.142)	159
Health	3.87	0.05	2.90	1.24	2.31	0.29	3.25	0.99	0.88	
(s.e.)	(0.084)	(0.030)	(0.120)	(0.203)	(0.117)	(0.066)	(0.114)	(0.148)	(0.140)	79
Occupational home economics	4.08	0.02	2.54	1.06	2.12	0.20	3.23	1.07	0.53	
(s.e.)	(0.139)	(0.009)	(0.088)	(0.139)	(0.066)	(0.051)	(0.079)	(0.145)	(0.070)	195
Trade & industry	3.97	0.03	2.85	1.40	2.32	0.37	3.22	0.91	0.62	
(s.e.)	(0.034)	(0.008)	(0.041)	(0.061)	(0.049)	(0.031)	(0.038)	(0.044)	(0.042)	1,142
Technical & communications	4.15	0.18	3.48	2.65	3.03	1.03	3.53	1.08	1.74	
(s.e.)	(0.093)	(0.063)	(0.159)	(0.225)	(0.220)	(0.145)	(0.091)	(0.186)	(0.208)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 4.18 Carnegie units in English.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 43—Average number of Carnegie units accumulated in English by 1992 public high school graduates by level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	All English	Remedial	AP or honors	All other	Unweighted Ns
Total[1]	4.18	0.16	0.14	3.87	
(s.e.)	(0.018)	(0.011)	(0.008)	(0.020)	11,707
Total vocational Carnegie units accumulated					
0.00–1.99	4.30	0.07	0.27	3.95	
(s.e.)	(0.024)	(0.013)	(0.017)	(0.029)	3,127
2.00–3.99	4.25	0.12	0.15	3.98	
(s.e.)	(0.030)	(0.013)	(0.013)	(0.034)	3,587
4.00–5.99	4.16	0.20	0.09	3.87	
(s.e.)	(0.036)	(0.026)	(0.015)	(0.041)	2,565
6.00–7.99	4.02	0.27	0.03	3.72	
(s.e.)	(0.034)	(0.027)	(0.006)	(0.038)	1,469
8.00 or more	3.85	0.34	0.03	3.48	
(s.e.)	(0.041)	(0.048)	(0.011)	(0.054)	959
Area of specialization[2]					
College prep	4.39	0.04	0.30	4.04	
(s.e.)	(0.018)	(0.009)	(0.017)	(0.023)	3,951
Vocational	3.94	0.30	0.05	3.59	
(s.e.)	(0.036)	(0.051)	(0.010)	(0.052)	902
Other	4.09	0.21	0.07	3.82	
(s.e.)	(0.026)	(0.015)	(0.007)	(0.030)	6,854
Area of vocational program concentration[3]					
None	4.23	0.14	0.17	3.92	
(s.e.)	(0.020)	(0.011)	(0.010)	(0.023)	8,865
Agriculture	4.02	0.37	0.04	3.60	
(s.e.)	(0.088)	(0.085)	(0.012)	(0.115)	306
Business & office	4.08	0.09	0.12	3.87	
(s.e.)	(0.043)	(0.018)	(0.021)	(0.043)	898
Marketing & distribution	4.11	0.13	0.05	3.93	
(s.e.)	(0.048)	(0.053)	(0.017)	(0.067)	159
Health	3.87	0.33	0.05	3.49	
(s.e.)	(0.084)	(0.152)	(0.030)	(0.189)	79
Occupational home economics	4.08	0.45	0.02	3.61	
(s.e.)	(0.139)	(0.102)	(0.009)	(0.189)	195
Trade & industry	3.97	0.31	0.03	3.63	
(s.e.)	(0.034)	(0.039)	(0.008)	(0.048)	1,142
Technical & communications	4.15	0.13	0.18	3.84	
(s.e.)	(0.093)	(0.070)	(0.063)	(0.108)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 4.18 Carnegie units in English.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the "all English" column due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 44—Percentage of 1992 public high school graduates accumulating Carnegie units in English by level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	All English	Remedial	AP or honors	All other	Unweighted Ns
Total[1]	100.00	11.76	14.49	99.09	
(s.e.)	(0.000)	(0.787)	(0.765)	(0.144)	11,707
Number of Carnegie units accumulated in vocational education					
0.00–1.99	100.00	7.64	27.11	99.74	
(s.e.)	(0.000)	(1.955)	(1.704)	(0.126)	3,127
2.00–3.99	100.00	9.80	15.49	99.64	
(s.e.)	(0.000)	(0.861)	(1.271)	(0.162)	3,587
4.00–5.99	100.00	13.17	8.80	98.96	
(s.e.)	(0.000)	(1.300)	(1.077)	(0.279)	2,565
6.00–7.99	100.00	18.67	3.47	98.56	
(s.e.)	(0.000)	(1.676)	(0.626)	(0.380)	1,469
8.00 or more	100.00	17.56	3.42	96.25	
(s.e.)	(0.000)	(2.000)	(1.132)	(0.905)	959
Area of specialization[2]					
College prep	100.00	5.38	30.41	100.00	
(s.e.)	(0.000)	(1.591)	(1.659)	(0.000)	3,951
Vocational	100.00	16.00	4.80	97.82	
(s.e.)	(0.000)	(1.833)	(1.073)	(0.730)	902
Other	100.00	14.67	7.11	98.76	
(s.e.)	(0.000)	(0.883)	(0.589)	(0.216)	6,854
Area of vocational program concentration[3]					
None	100.00	10.63	17.04	99.55	
(s.e.)	(0.000)	(0.929)	(0.909)	(0.101)	8,865
Agriculture	100.00	19.88	4.53	93.69	
(s.e.)	(0.000)	(4.091)	(1.249)	(2.302)	306
Business & office	100.00	7.03	11.69	99.60	
(s.e.)	(0.000)	(1.217)	(2.114)	(0.186)	898
Marketing & distribution	100.00	6.59	5.66	98.70	
(s.e.)	(0.000)	(1.958)	(1.861)	(0.929)	159
Health	100.00	17.05	5.34	93.90	
(s.e.)	(0.000)	(5.366)	(2.993)	(4.897)	79
Occupational home economics	100.00	26.61	1.56	94.50	
(s.e.)	(0.000)	(4.318)	(0.904)	(2.661)	195
Trade & industry	100.00	19.55	3.64	97.71	
(s.e.)	(0.000)	(1.820)	(0.815)	(0.599)	1,142
Technical & communications	100.00	10.78	17.46	100.00	
(s.e.)	(0.000)	(5.376)	(6.296)	(0.000)	63

First row, second column reads: Of all 1992 public high school graduates, 11.76 percent completed one or more courses in remedial English.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than 100 percent because students may have taken English courses at more than one level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 45—Average number of Carnegie units accumulated in math by 1992 public high school graduates by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	Less than Algebra 1					Algebra 1 or higher					Computer science	Un-weighted Ns
	All types	Basic math	General math	Applied math	Pre-algebra	All types	Algebra 1	Geometry	Advanced math[1]	Calculus		
Total[2]	0.98	0.10	0.23	0.35	0.30	2.41	0.71	0.68	0.93	0.09	0.35	
(s.e.)	(0.022)	(0.007)	(0.012)	(0.012)	(0.012)	(0.030)	(0.010)	(0.010)	(0.019)	(0.005)	(0.012)	11,707
Total vocational Carnegie units accumulated												
0.00–1.99	0.56	0.03	0.09	0.27	0.17	3.22	0.74	0.88	1.41	0.19	0.20	
(s.e.)	(0.027)	(0.005)	(0.010)	(0.017)	(0.017)	(0.039)	(0.017)	(0.010)	(0.031)	(0.011)	(0.014)	3,127
2.00–3.99	0.89	0.08	0.18	0.34	0.29	2.68	0.75	0.77	1.05	0.10	0.38	
(s.e.)	(0.038)	(0.009)	(0.021)	(0.021)	(0.022)	(0.049)	(0.018)	(0.018)	(0.030)	(0.010)	(0.020)	3,587
4.00–5.99	1.14	0.12	0.28	0.39	0.35	2.08	0.73	0.60	0.71	0.04	0.44	
(s.e.)	(0.036)	(0.012)	(0.022)	(0.021)	(0.020)	(0.046)	(0.017)	(0.019)	(0.030)	(0.005)	(0.021)	2,565
6.00–7.99	1.40	0.17	0.35	0.45	0.43	1.52	0.63	0.43	0.44	0.01	0.41	
(s.e.)	(0.041)	(0.020)	(0.028)	(0.023)	(0.025)	(0.050)	(0.019)	(0.019)	(0.026)	(0.003)	(0.028)	1,469
8.00 or more	1.51	0.20	0.53	0.42	0.36	1.11	0.53	0.29	0.29	0.01	0.41	
(s.e.)	(0.059)	(0.032)	(0.043)	(0.029)	(0.028)	(0.067)	(0.025)	(0.025)	(0.032)	(0.005)	(0.047)	959
Area of specialization[3]												
College prep	0.42	0.01	0.04	0.24	0.13	3.57	0.76	0.95	1.65	0.22	0.40	
(s.e.)	(0.020)	(0.002)	(0.005)	(0.014)	(0.014)	(0.024)	(0.016)	(0.007)	(0.025)	(0.012)	(0.019)	3,951
Vocational	1.50	0.19	0.49	0.40	0.41	1.34	0.57	0.36	0.39	0.02	0.29	
(s.e.)	(0.061)	(0.026)	(0.044)	(0.026)	(0.028)	(0.071)	(0.026)	(0.026)	(0.034)	(0.005)	(0.031)	902
Other	1.21	0.14	0.30	0.41	0.37	1.91	0.70	0.57	0.61	0.03	0.34	
(s.e.)	(0.027)	(0.009)	(0.017)	(0.015)	(0.016)	(0.033)	(0.013)	(0.014)	(0.019)	(0.003)	(0.015)	6,854

Table 45—Average number of Carnegie units accumulated in math by 1992 public high school graduates by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration—Continued

Participation in vocational education	Less than Algebra 1					Algebra 1 or higher					Computer science	Unweighted Ns
	All types	Basic math	General math	Applied math	Pre-algebra	All types	Algebra 1	Geometry	Advanced math[1]	Calculus		
Area of vocational program concentration[4]												
None	0.88	0.08	0.18	0.34	0.27	2.64	0.74	0.74	1.05	0.11	0.33	
(s.e.)	(0.024)	(0.006)	(0.012)	(0.014)	(0.013)	(0.033)	(0.012)	(0.011)	(0.022)	(0.006)	(0.013)	8,865
Agriculture	1.38	0.14	0.43	0.52	0.28	1.45	0.55	0.40	0.48	0.01	0.20	
(s.e.)	(0.065)	(0.039)	(0.060)	(0.065)	(0.037)	(0.106)	(0.034)	(0.032)	(0.069)	(0.006)	(0.038)	306
Business & office	0.97	0.07	0.21	0.36	0.33	2.20	0.76	0.65	0.76	0.03	0.80	
(s.e.)	(0.052)	(0.012)	(0.022)	(0.028)	(0.029)	(0.062)	(0.023)	(0.024)	(0.041)	(0.006)	(0.051)	898
Marketing & distribution	1.43	0.11	0.30	0.51	0.51	1.65	0.60	0.50	0.54	0.01	0.14	
(s.e.)	(0.142)	(0.038)	(0.077)	(0.064)	(0.068)	(0.190)	(0.064)	(0.060)	(0.089)	(0.006)	(0.027)	159
Health	1.66	0.17	0.85	0.36	0.27	1.24	0.57	0.28	0.37	0.01	0.27	
(s.e.)	(0.209)	(0.061)	(0.201)	(0.072)	(0.071)	(0.203)	(0.077)	(0.057)	(0.099)	(0.008)	(0.069)	79
Occupational home economics	1.48	0.25	0.54	0.35	0.34	1.06	0.52	0.26	0.26	0.01	0.13	
(s.e.)	(0.148)	(0.078)	(0.100)	(0.056)	(0.057)	(0.139)	(0.057)	(0.055)	(0.074)	(0.009)	(0.030)	195
Trade & industry	1.46	0.22	0.43	0.38	0.42	1.40	0.57	0.40	0.41	0.02	0.26	
(s.e.)	(0.052)	(0.028)	(0.036)	(0.023)	(0.027)	(0.061)	(0.023)	(0.023)	(0.032)	(0.005)	(0.029)	1,142
Technical & communications	0.84	0.02	0.22	0.42	0.17	0.69	2.65	0.66	0.16	0.13	1.76	
(s.e.)	(0.163)	(0.017)	(0.064)	(0.091)	(0.054)	(0.078)	(0.225)	(0.086)	(0.192)	(0.059)	(0.284)	63

First row, first column reads: 1992 public high school graduates earned on average a total of 0.98 Carnegie units in high school in math courses below the Algebra I level.

[1] Includes Algebra 2 and 3, Trigonometry, Analytic Geometry, Precalculus, and Probability and Statistics.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the "all types" columns due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 46—Percentage of 1992 public high school graduates accumulating Carnegie units in math by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	Less than Algebra 1					Algebra 1 or higher					Computer science	Unweighted Ns
	All types	Basic math	General math	Applied math	Pre-algebra	All types	Algebra 1	Geometry	Advanced math[1]	Calculus		
Total[2]	64.59	8.57	17.77	41.98	26.53	85.81	69.30	68.17	61.23	9.25	37.46	
(s.e.)	(1.094)	(0.495)	(0.803)	(1.275)	(1.052)	(0.648)	(0.909)	(1.015)	(0.990)	(0.451)	(1.145)	11,707
Total vocational Carnegie units accumulated												
0.00–1.99	49.65	3.26	7.63	36.28	15.02	96.87	71.87	87.91	84.50	19.08	29.85	
(s.e.)	(2.084)	(0.445)	(0.768)	(2.013)	(1.539)	(0.611)	(1.623)	(1.018)	(1.123)	(1.113)	(2.186)	3,127
2.00–3.99	61.92	7.00	14.59	41.92	26.78	91.45	72.87	77.18	70.05	10.10	40.15	
(s.e.)	(1.790)	(0.648)	(1.585)	(2.155)	(2.081)	(1.295)	(1.673)	(1.703)	(1.658)	(0.958)	(1.766)	3,587
4.00–5.99	71.41	10.94	21.25	44.70	31.13	84.39	71.59	60.89	50.70	4.05	43.73	
(s.e.)	(1.621)	(1.018)	(1.359)	(1.938)	(1.699)	(1.076)	(1.508)	(1.867)	(1.872)	(0.499)	(1.833)	2,565
6.00–7.99	78.70	14.80	27.20	48.07	37.95	70.55	62.32	44.48	35.26	1.55	37.4	
(s.e.)	(1.729)	(1.574)	(1.857)	(1.868)	(1.976)	(1.778)	(1.854)	(1.848)	(1.775)	(0.349)	(1.931)	1,469
8.00 or more	81.19	15.11	37.11	43.50	32.07	57.89	52.89	29.50	24.32	1.11	34.64	
(s.e.)	(2.451)	(1.880)	(2.552)	(2.573)	(2.272)	(2.298)	(2.360)	(2.560)	(2.388)	(0.510)	(2.861)	959
Area of specialization[3]												
College prep	44.42	1.24	3.53	33.95	11.49	100.00	73.83	94.45	94.62	21.77	43.57	
(s.e.)	(2.023)	(0.250)	(0.439)	(1.954)	(1.277)	(0.000)	(1.449)	(0.654)	(0.597)	(1.165)	(1.876)	3,951
Vocational	80.37	15.13	35.00	44.18	37.26	62.46	56.62	36.89	30.13	2.07	27.83	
(s.e.)	(2.457)	(1.847)	(2.494)	(2.547)	(2.376)	(2.414)	(2.439)	(2.599)	(2.455)	(0.596)	(2.479)	902
Other	73.47	11.69	23.24	46.04	33.29	81.15	68.50	58.00	47.17	3.39	35.40	
(s.e.)	(1.094)	(0.700)	(1.118)	(1.467)	(1.427)	(0.933)	(1.165)	(1.354)	(1.294)	(0.292)	(1.339)	6,854

Table 46—Percentage of 1992 public high school graduates accumulating Carnegie units in math by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration—Continued

Participation in vocational education	Less than Algebra 1					Algebra 1 or higher					Computer science	Unweighted Ns
	All types	Basic math	General math	Applied math	Pre-algebra	All types	Algebra 1	Geometry	Advanced Math	Calculus		
Area of vocational program concentration[4]												
None	61.58	7.16	14.56	41.83	24.37	90.12	71.52	74.58	68.22	11.29	37.39	
(s.e.)	(1.312)	(0.484)	(0.855)	(1.486)	(1.195)	(0.683)	(1.057)	(1.085)	(1.128)	(0.574)	(1.272)	8,865
Agriculture	80.41	10.64	33.41	48.86	27.19	63.54	55.47	40.49	35.03	1.42	25.37	
(s.e.)	(2.519)	(2.241)	(4.203)	(4.490)	(3.650)	(3.222)	(3.230)	(3.163)	(3.498)	(0.632)	(4.351)	306
Business & office	64.94	7.16	17.58	40.25	29.29	87.05	74.37	66.03	53.95	3.87	62.72	
(s.e.)	(2.745)	(1.087)	(1.785)	(2.605)	(2.424)	(1.528)	(2.087)	(2.291)	(2.609)	(0.685)	(2.709)	898
Marketing & distribution	74.11	16.13	23.66	51.20	44.80	69.38	58.67	50.84	37.69	0.79	20.27	
(s.e.)	(4.361)	(7.393)	(5.043)	(5.560)	(6.213)	(7.075)	(6.164)	(5.993)	(5.062)	(0.583)	(4.166)	159
Health	80.84	12.87	53.12	38.89	24.30	64.13	60.35	29.19	28.33	1.71	25.49	
(s.e.)	(4.938)	(3.861)	(7.498)	(7.207)	(5.484)	(8.017)	(7.868)	(5.899)	(6.020)	(1.273)	(5.764)	79
Occupational home economics	79.57	18.89	35.76	38.43	35.84	61.44	53.89	27.14	23.55	2.27	16.61	
(s.e.)	(6.114)	(4.110)	(5.788)	(5.293)	(5.882)	(5.946)	(5.728)	(5.591)	(6.036)	(1.747)	(3.021)	195
Trade & industry	78.78	16.92	31.91	42.41	37.20	65.40	56.73	40.48	32.01	2.38	26.61	
(s.e.)	(2.012)	(1.809)	(2.096)	(2.279)	(2.209)	(2.091)	(2.184)	(2.279)	(2.108)	(0.498)	(2.348)	1,142
Technical & communications	55.56	2.81	19.84	43.94	15.43	89.85	70.63	67.78	68.81	13.44	72.03	
(s.e.)	(9.289)	(1.802)	(5.662)	(8.748)	(4.785)	(3.799)	(7.765)	(8.607)	(6.772)	(5.861)	(8.060)	63

First row, first column reads: Of all 1992 public high school graduates, 64.59 percent completed one or more high school math courses below the Algebra I level.

[1] Includes Algebra 2 and 3, Trigonometry, Analytic Geometry, Precalculus, and Probability and Statistics.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than the "all types" columns because students may have taken courses in more than one type of math.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 47—Average number of Carnegie units accumulated in science by 1992 public high school graduates by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	Survey science	Biology			Chemistry and physics	Chemistry			Physics	Unweighted Ns
		All levels	Regular	Advanced		All levels	Regular	Advanced		
Total[1]	0.84	1.19	0.92	0.26	0.85	0.58	0.54	0.05	0.26	
(s.e.)	(0.015)	(0.014)	(0.013)	(0.012)	(0.019)	(0.012)	(0.011)	(0.004)	(0.010)	11,707
Total vocational Carnegie units accumulated										
0.00-1.99	0.69	1.35	0.90	0.46	1.37	0.91	0.81	0.11	0.45	
(s.e.)	(0.026)	(0.023)	(0.017)	(0.024)	(0.029)	(0.016)	(0.015)	(0.010)	(0.021)	3,127
2.00-3.99	0.82	1.21	0.95	0.26	0.97	0.67	0.62	0.04	0.30	
(s.e.)	(0.024)	(0.021)	(0.021)	(0.016)	(0.034)	(0.020)	(0.019)	(0.005)	(0.019)	3,587
4.00-5.99	0.92	1.15	0.95	0.20	0.60	0.44	0.43	0.02	0.16	
(s.e.)	(0.020)	(0.020)	(0.018)	(0.017)	(0.027)	(0.019)	(0.019)	(0.003)	(0.012)	2,565
6.00-7.99	0.95	1.02	0.91	0.12	0.35	0.26	0.26	0.01	0.08	
(s.e.)	(0.027)	(0.024)	(0.023)	(0.016)	(0.023)	(0.018)	(0.017)	(0.003)	(0.010)	1,469
8.00 or more	1.02	0.92	0.84	0.08	0.21	0.13	0.12	0.00	0.08	
(s.e.)	(0.027)	(0.025)	(0.023)	(0.012)	(0.031)	(0.020)	(0.019)	(0.002)	(0.020)	959
Area of specialization[2]										
College prep	0.72	1.41	0.93	0.48	1.61	1.07	0.97	0.11	0.54	
(s.e.)	(0.022)	(0.026)	(0.029)	(0.023)	(0.029)	(0.013)	(0.013)	(0.010)	(0.022)	3,951
Vocational	0.97	0.99	0.88	0.12	0.32	0.21	0.21	0.01	0.10	
(s.e.)	(0.031)	(0.031)	(0.028)	(0.017)	(0.030)	(0.023)	(0.022)	(0.002)	(0.018)	902
Other	0.89	1.09	0.93	0.17	0.50	0.37	0.35	0.02	0.14	
(s.e.)	(0.018)	(0.012)	(0.011)	(0.010)	(0.018)	(0.013)	(0.013)	(0.002)	(0.008)	6,854

Table 47—Average number of Carnegie units accumulated in science by 1992 public high school graduates by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration—Continued

Participation in vocational education	Survey science	Biology			Chemistry and physics	Chemistry			Physics	Unweighted Ns
		All levels	Regular	Advanced		All levels	Regular	Advanced		
Area of vocational program concentration[3]										
None	0.81	1.23	0.93	0.30	0.98	0.67	0.61	0.06	0.31	
(s.e.)	(0.017)	(0.016)	(0.015)	(0.014)	(0.022)	(0.014)	(0.013)	(0.005)	(0.012)	8,865
Agriculture	0.92	1.07	0.94	0.13	0.39	0.31	0.30	0.01	0.08	
(s.e.)	(0.046)	(0.038)	(0.034)	(0.023)	(0.056)	(0.044)	(0.043)	(0.005)	(0.019)	306
Business & office	0.90	1.16	0.99	0.17	0.58	0.44	0.42	0.01	0.15	
(s.e.)	(0.028)	(0.025)	(0.023)	(0.017)	(0.038)	(0.028)	(0.028)	(0.003)	(0.022)	898
Marketing & distribution	0.93	1.00	0.84	0.16	0.34	0.27	0.27	0.00	0.07	
(s.e.)	(0.093)	(0.064)	(0.049)	(0.044)	(0.049)	(0.041)	(0.041)	(0.004)	(0.018)	159
Health	0.98	1.05	0.85	0.19	0.29	0.26	0.26	0.00	0.03	
(s.e.)	(0.053)	(0.078)	(0.059)	(0.062)	(0.066)	(0.057)	(0.057)	(0.000)	(0.020)	79
Occupational home economics	0.89	1.03	0.94	0.09	0.20	0.19	0.19	0.01	0.01	
(s.e.)	(0.061)	(0.054)	(0.042)	(0.036)	(0.051)	(0.051)	(0.051)	(0.005)	(0.006)	195
Trade & industry	1.00	0.96	0.84	0.12	0.37	0.22	0.21	0.01	0.14	
(s.e.)	(0.029)	(0.026)	(0.028)	(0.018)	(0.031)	(0.019)	(0.018)	(0.004)	(0.017)	1,142
Technical & communications	0.70	1.30	0.96	0.35	1.03	0.65	0.63	0.02	0.38	
(s.e.)	(0.148)	(0.103)	(0.145)	(0.115)	(0.145)	(0.083)	(0.083)	(0.013)	(0.090)	63

First row, first column reads: 1992 public high school graduates earned on average 0.84 Carnegie units in survey science courses in high school.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to the "all levels" columns due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 48—Percentage of 1992 public high school graduates accumulating Carnegie units in science by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	Survey science	Biology All levels	Biology Regular	Biology Advanced	Chemistry and physics	Chemistry All levels	Chemistry Regular	Chemistry Advanced	Physics	Unweighted Ns
Total[1]	76.41	94.04	85.08	24.70	57.52	54.25	53.20	4.82	25.30	
(s.e.)	(1.197)	(0.409)	(0.720)	(1.012)	(1.033)	(1.028)	(1.027)	(0.364)	(0.882)	11,707
Total vocational Carnegie units accumulated										
0.00-1.99	64.63	97.95	82.30	40.49	84.11	81.54	78.87	10.89	42.49	
(s.e.)	(2.264)	(0.305)	(1.325)	(2.089)	(1.148)	(1.216)	(1.330)	(0.960)	(1.895)	3,127
2.00-3.99	74.82	95.27	85.84	24.49	65.22	62.10	61.38	4.74	28.48	
(s.e.)	(2.019)	(0.591)	(1.085)	(1.414)	(1.760)	(1.773)	(1.772)	(0.546)	(1.492)	3,587
4.00-5.99	82.97	94.45	88.73	19.42	46.01	42.45	42.10	1.76	16.57	
(s.e.)	(1.423)	(0.721)	(1.039)	(1.450)	(1.812)	(1.744)	(1.750)	(0.299)	(1.186)	2,565
6.00-7.99	83.97	88.92	85.19	12.31	30.22	27.13	26.76	0.96	8.71	
(s.e.)	(1.991)	(1.365)	(1.628)	(1.692)	(1.819)	(1.782)	(1.782)	(0.288)	(1.072)	1,469
8.00 or more	89.79	84.10	81.14	9.14	19.01	13.48	13.36	0.31	8.64	
(s.e.)	(1.467)	(1.961)	(2.074)	(1.289)	(2.506)	(2.074)	(2.075)	(0.203)	(1.983)	959
Area of specialization[2]										
College prep	69.02	98.57	81.75	41.31	97.27	95.05	92.56	11.13	49.01	
(s.e.)	(1.966)	(0.398)	(1.373)	(1.922)	(0.375)	(0.613)	(0.830)	(0.948)	(1.745)	3,951
Vocational	85.57	86.53	83.12	11.85	26.57	21.59	21.42	0.70	10.69	
(s.e.)	(2.137)	(1.758)	(1.901)	(1.615)	(2.575)	(2.347)	(2.347)	(0.239)	(1.794)	902
Other	79.23	92.57	87.15	17.36	40.00	36.37	35.98	1.94	14.34	
(s.e.)	(1.431)	(0.547)	(0.755)	(0.958)	(1.320)	(1.300)	(1.294)	(0.216)	(0.853)	6,854

Table 48—Percentage of 1992 public high school graduates accumulating Carnegie units in science by type and level of course, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration—Continued

		Biology				Chemistry				
Participation in vocational education	Survey science	All levels	Regular	Advanced	Chemistry and physics	All levels	Regular	Advanced	Physics	Unweighted Ns
Area of vocational program concentration[3]										
None	73.82	95.24	85.01	28.07	64.91	61.85	60.51	6.02	29.27	
(s.e.)	(1.404)	(0.399)	(0.812)	(1.185)	(1.167)	(1.182)	(1.187)	(0.465)	(1.009)	8,865
Agriculture	82.10	90.88	87.53	14.22	31.41	30.64	30.42	0.83	8.77	
(s.e.)	(3.278)	(2.205)	(2.476)	(2.614)	(4.282)	(4.302)	(4.308)	(0.472)	(1.975)	306
Business & office	83.05	96.06	91.30	16.61	46.98	43.28	43.18	1.22	14.90	
(s.e.)	(2.206)	(0.729)	(1.113)	(1.652)	(2.698)	(2.664)	(2.665)	(0.348)	(2.178)	898
Marketing & distribution	81.36	92.65	86.66	15.41	31.85	28.87	28.45	0.42	9.27	
(s.e.)	(7.230)	(2.632)	(3.579)	(3.941)	(4.666)	(4.289)	(4.278)	(0.424)	(2.670)	159
Health	90.55	85.49	80.98	17.39	28.58	28.58	28.58	0.00	3.29	
(s.e.)	(3.494)	(4.664)	(4.914)	(4.388)	(6.244)	(6.244)	(6.244)	(0.000)	(2.020)	79
Occupational home economics	83.16	90.86	88.79	10.55	20.37	19.58	19.58	0.55	0.78	
(s.e.)	(5.082)	(3.014)	(3.177)	(4.172)	(5.105)	(5.120)	(5.120)	(0.544)	(0.565)	195
Trade & industry	87.93	85.53	79.98	11.99	27.61	21.69	21.49	1.31	14.48	
(s.e.)	(1.647)	(1.636)	(2.125)	(1.812)	(2.109)	(1.803)	(1.801)	(0.411)	(1.720)	1,142
Technical & communications	57.45	92.69	77.33	27.79	66.59	62.85	62.85	1.51	40.60	
(s.e.)	(9.693)	(3.598)	(7.865)	(7.740)	(7.723)	(8.148)	(8.148)	(1.296)	(9.447)	63

First row, first column reads: Of all 1992 public high school graduates, 76.41 percent completed one or more survey science courses in high school.

[1] Included in the total are graduates who may be missing data on particular row variables.

[2] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[3] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may sum to greater than the "all levels" columns because students may have taken courses at more than one biology or chemistry level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

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Table 49—Percentage of 1992 public high school graduates completing math courses by highest level of course completed, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration

Participation in vocational education	Less than prealgebra	Prealgebra	Algebra 1	Geometry	Algebra 2	Other advanced[1]	Calculus	Unweighted Ns
Total[2]	7.88	6.25	10.83	13.66	31.02	21.11	9.25	
(s.e.)	(0.443)	(0.517)	(0.569)	(0.630)	(0.973)	(0.909)	(0.452)	11,698
Total vocational Carnegie units accumulated								
0.00-1.99	1.93	1.12	3.61	8.52	30.39	35.33	19.09	
(s.e.)	(0.554)	(0.254)	(0.505)	(0.755)	(1.886)	(2.124)	(1.114)	3,124
2.00-3.99	4.04	4.44	8.14	13.20	36.61	23.47	10.10	
(s.e.)	(0.514)	(1.234)	(1.051)	(0.949)	(1.928)	(1.306)	(0.959)	3,584
4.00-5.99	8.19	7.42	15.02	18.66	31.61	15.05	4.05	
(s.e.)	(0.733)	(0.825)	(1.330)	(1.596)	(1.626)	(1.101)	(0.499)	2,565
6.00-7.99	15.79	13.58	17.71	17.62	25.75	8.00	1.55	
(s.e.)	(1.489)	(1.564)	(1.427)	(1.430)	(1.609)	(0.868)	(0.350)	1,468
8.00 or more	27.38	14.60	21.37	12.02	19.13	4.38	1.12	
(s.e.)	(2.031)	(1.564)	(1.742)	(1.478)	(2.257)	(1.228)	(0.511)	957
Area of specialization[3]								
College prep	0.00	0.00	0.80	4.50	35.08	37.85	21.77	
(s.e.)	(0.000)	(0.000)	(0.200)	(0.553)	(1.716)	(1.852)	(1.165)	3,951
Vocational	21.47	15.92	19.47	12.93	22.24	5.89	2.07	
(s.e.)	(2.001)	(1.786)	(1.769)	(1.363)	(2.407)	(1.028)	(0.598)	900
Other	10.38	8.38	15.15	18.72	29.96	14.01	3.39	
(s.e.)	(0.631)	(0.784)	(0.849)	(0.943)	(1.239)	(0.926)	(0.293)	6,847

Table 49—Percentage of 1992 public high school graduates completing math courses by highest level of course completed, by number of Carnegie units accumulated in vocational education and areas of specialization and vocational concentration—Continued

Participation in vocational education	Less than prealgebra	Prealgebra	Algebra 1	Geometry	Algebra 2	Other advanced[1]	Calculus	Unweighted Ns
Area of vocational program concentration[4]								
None	5.14	4.69	8.79	12.98	32.74	24.36	11.30	
(s.e.)	(0.394)	(0.585)	(0.613)	(0.715)	(1.182)	(1.089)	(0.575)	8,860
Agriculture	27.07	9.40	14.96	13.54	23.06	10.55	1.42	
(s.e.)	(3.721)	(2.119)	(2.248)	(2.181)	(3.271)	(2.428)	(0.632)	306
Business & office	5.81	6.94	14.39	18.78	33.27	16.93	3.88	
(s.e.)	(0.886)	(1.228)	(1.545)	(2.384)	(2.504)	(1.901)	(0.687)	896
Marketing & distribution	10.58	20.05	15.52	16.17	23.48	13.42	0.79	
(s.e.)	(3.791)	(7.385)	(3.381)	(3.207)	(3.922)	(3.363)	(0.583)	159
Health	26.03	9.84	29.25	6.55	21.96	4.66	1.71	
(s.e.)	(8.057)	(3.967)	(6.666)	(2.560)	(5.147)	(2.913)	(1.273)	79
Occupational home economics	29.52	9.05	23.47	14.42	19.71	1.57	2.27	
(s.e.)	(5.402)	(2.156)	(6.019)	(3.009)	(5.151)	(0.835)	(1.747)	195
Trade & industry	19.87	14.59	18.49	14.97	21.75	7.95	2.38	
(s.e.)	(1.692)	(1.500)	(1.720)	(1.628)	(1.950)	(1.089)	(0.499)	1,140
Technical & communications	9.44	0.71	8.58	12.07	32.73	23.03	13.44	
(s.e.)	(3.710)	(0.721)	(3.636)	(4.253)	(9.045)	(8.299)	(5.861)	63

First row, first column reads: Of all 1992 public high school graduates, 7.88 percent completed a less-than-prealgebra-level course as their highest math course.

[1] Includes Algebra 3, Trigonometry, Analytic Geometry, Precalculus, and Probability and Statistics.

[2] Included in the total are graduates who may be missing data on particular row variables.

[3] Students who are vocational specialists are defined as completing 4.00 or more Carnegie units in a single specific labor market preparation program area, with at least 2.00 of those units in a second or later course in the sequence. Students who meet the following criteria are defined as college preparatory: completing 4.00 or more Carnegie units in English; 3.00 or more Carnegie units in math, with 1.00 or more of those units in algebra or higher; 3.00 or more Carnegie units in science, with 1.00 or more of those units in chemistry or physics; and 2.00 or more Carnegie units in a single foreign language. Students who meet both the vocational specialist and college preparatory criteria are included in the vocational specialist group. Students who are classified as "other" do not meet the criteria for either specialization.

[4] Vocational program concentration is defined as completing 3.00 or more Carnegie units in a single specific labor market preparation program area. If students complete 3.00 or more Carnegie units in more than one specific labor market preparation program area, they are assigned to the area in which they completed the most credits. The number of cases where the number of credits was the same was too few to pose a significant problem.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 50—Percentage of public high school graduates completing one or more courses in vocational education by type of vocational education, by sex and race-ethnicity: 1982–1992

Sex and race-ethnicity	All vocational education	Consumer & homemaking education	General labor market preparation	Specific labor market preparation	Unweighted Ns
1982 graduates					
Total*	97.8	49.9	78.6	86.7	
(s.e.)	(0.20)	(0.92)	(0.70)	(0.53)	9,510
Sex					
Male	97.6	34.0	72.2	89.4	
(s.e.)	(0.29)	(1.16)	(1.01)	(0.62)	4,622
Female	98.0	64.9	86.0	83.9	
(s.e.)	(0.26)	(1.06)	(0.75)	(0.75)	4,888
Race-ethnicity					
White, non-Hispanic	97.3	47.7	80.0	86.0	
(s.e.)	(0.27)	(1.05)	(0.77)	(0.62)	5,604
Black, non-Hispanic	99.3	60.4	76.1	87.5	
(s.e.)	(0.19)	(2.27)	(2.05)	(1.28)	1,326
Hispanic	99.0	56.3	77.5	89.6	
(s.e.)	(0.25)	(1.78)	(1.48)	(1.01)	2,045
Asian	96.1	34.7	79.4	76.8	
(s.e.)	(1.25)	(4.84)	(3.21)	(3.36)	295
Native American	99.4	50.0	85.9	93.0	
(s.e.)	(0.61)	(7.80)	(3.49)	(2.23)	161
1987 graduates					
Total*	97.8	47.1	78.5	88.5	
(s.e.)	(0.35)	(1.22)	(1.04)	(0.61)	24,426
Sex					
Male	97.9	34.5	73.9	91.3	
(s.e.)	(0.28)	(1.43)	(1.08)	(0.61)	12,251
Female	97.7	59.0	82.9	85.8	
(s.e.)	(0.47)	(1.45)	(1.21)	(0.77)	12,105
Race-ethnicity					
White, non-Hispanic	97.8	46.2	79.4	88.2	
(s.e.)	(0.33)	(1.43)	(1.18)	(0.71)	15,628
Black, non-Hispanic	98.7	53.6	77.7	88.3	
(s.e.)	(0.25)	(2.09)	(1.59)	(1.24)	3,584
Hispanic	97.8	51.3	76.5	89.1	
(s.e.)	(0.80)	(3.53)	(2.44)	(1.19)	2,782
Asian	93.6	36.6	69.7	82.8	
(s.e.)	(3.12)	(6.91)	(9.21)	(2.98)	844
Native American	98.4	51.1	78.0	92.2	
(s.e.)	(0.84)	(4.02)	(2.83)	(2.73)	302

Table 50—Percentage of public high school graduates completing one or more courses in vocational education by type of vocational education, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	All vocational education	Consumer & homemaking education	General labor market preparation	Specific labor market preparation	Unweighted Ns
1990 graduates					
Total*	97.4	48.1	71.6	86.8	
(s.e.)	(0.30)	(1.95)	(1.81)	(0.93)	16,456
Sex					
Male	97.5	37.3	66.6	90.9	
(s.e.)	(0.33)	(2.24)	(1.85)	(0.66)	7,821
Female	97.3	58.1	76.2	82.9	
(s.e.)	(0.35)	(2.01)	(1.91)	(1.27)	8,626
Race-ethnicity					
White, non-Hispanic	97.2	47.4	71.4	86.3	
(s.e.)	(0.27)	(2.28)	(2.29)	(0.99)	11,386
Black, non-Hispanic	98.2	56.5	74.5	87.37	
(s.e.)	(0.37)	(2.69)	(2.37)	(1.85)	2,307
Hispanic	97.5	46.7	71.8	90.3	
(s.e.)	(0.56)	(3.04)	(2.35)	(1.08)	1,437
Asian	96.8	35.2	70.5	83.1	
(s.e.)	(1.06)	(2.87)	(6.56)	(2.05)	677
Native American	96.5	52.7	64.4	91.5	
(s.e.)	(2.20)	(6.75)	(10.07)	(2.56)	84
1992 graduates					
Total*	96.5	45.4	62.4	87.1	
(s.e.)	(0.26)	(1.18)	(1.25)	(0.56)	11,707
Sex					
Male	96.5	35.8	59.3	89.1	
(s.e.)	(0.35)	(1.59)	(1.55)	(0.66)	5,760
Female	96.5	54.5	65.3	85.0	
(s.e.)	(0.36)	(1.41)	(1.51)	(0.81)	5,917
Race-ethnicity					
White, non-Hispanic	96.1	44.9	61.9	86.6	
(s.e.)	(0.32)	(1.41)	(1.48)	(0.68)	8,269
Black, non-Hispanic	98.1	50.8	61.7	88.6	
(s.e.)	(0.49)	(2.75)	(2.96)	(1.37)	1,023
Hispanic	97.1	43.0	69.1	89.6	
(s.e.)	(0.76)	(2.76)	(2.82)	(1.27)	1,365
Asian	96.3	41.5	57.0	85.30	
(s.e.)	(0.72)	(3.48)	(3.68)	(1.63)	855
Native American	98.3	44.4	60.3	91.5	
(s.e.)	(1.20)	(5.01)	(6.68)	(2.63)	118

First row, first column reads: Of 1982 public high school graduates, 97.8 percent completed one or more courses in some type of vocational education.

*Included in the total are graduates who may be missing data on particular row variables.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 51—Average number of Carnegie units accumulated by public high school graduates by type of curriculum, by sex and race-ethnicity: 1982-1992

Sex and race-ethnicity	Total	Academic	Vocational	Personal use	Unweighted Ns
		1982 graduates			
Total*	21.4	14.2	4.6	2.6	
(s.e.)	(0.06)	(0.07)	(0.06)	(0.04)	9,510
Sex					
Male	21.3	13.9	4.6	2.8	
(s.e.)	(0.07)	(0.08)	(0.07)	(0.04)	4,622
Female	21.6	14.4	4.7	2.5	
(s.e.)	(0.07)	(0.08)	(0.07)	(0.04)	4,888
Race-ethnicity					
White, non-Hispanic	21.5	14.4	4.5	2.6	
(s.e.)	(0.07)	(0.08)	(0.06)	(0.04)	5,604
Black, non-Hispanic	21.1	13.7	4.8	2.6	
(s.e.)	(0.15)	(0.19)	(0.14)	(0.08)	1,326
Hispanic	21.2	13.0	5.3	2.9	
(s.e.)	(0.11)	(0.11)	(0.10)	(0.07)	2,045
Asian	22.2	16.0	3.1	3.10	
(s.e.)	(0.17)	(0.25)	(0.18)	(0.12)	295
Native American	21.3	13.3	5.1	2.93	
(s.e.)	(0.29)	(0.25)	(0.26)	(0.12)	161
		1987 graduates			
Total*	22.8	15.6	4.4	2.7	
(s.e.)	(0.09)	(0.11)	(0.07)	(0.07)	24,426
Sex					
Male	22.6	15.3	4.5	2.8	
(s.e.)	(0.09)	(0.12)	(0.08)	(0.07)	12,251
Female	22.9	16.0	4.4	2.6	
(s.e.)	(0.09)	(0.11)	(0.08)	(0.07)	12,105
Race-ethnicity					
White, non-Hispanic	22.9	15.7	4.5	2.6	
(s.e.)	(0.10)	(0.13)	(0.09)	(0.08)	15,628
Black, non-Hispanic	22.14	15.00	4.5	2.7	
(s.e.)	(0.15)	(0.15)	(0.10)	(0.10)	3,584
Hispanic	22.5	15.1	4.3	3.2	
(s.e.)	(0.14)	(0.20)	(0.16)	(0.10)	2,782
Asian	23.9	17.8	2.9	3.2	
(s.e.)	(0.63)	(0.62)	(0.26)	(0.29)	844
Native American	23.2	15.3	4.7	3.1	
(s.e.)	(0.54)	(0.34)	(0.18)	(0.18)	302

Table 51—Average number of Carnegie units accumulated by public high school graduates by type of curriculum, by sex and race-ethnicity: 1982–1992—Continued

Sex and race-ethnicity	Total	Academic	Vocational	Personal use	Unweighted Ns
1990 graduates					
Total*	23.5	16.7	4.1	2.7	
(s.e.)	(0.12)	(0.12)	(0.08)	(0.08)	16,456
Sex					
Male	23.3	16.2	4.2	2.9	
(s.e.)	(0.13)	(0.14)	(0.08)	(0.09)	7,821
Female	23.6	17.1	4.0	2.6	
(s.e.)	(0.12)	(0.13)	(0.09)	(0.07)	8,626
Race-ethnicity					
White, non-Hispanic	23.5	16.7	4.1	2.7	
(s.e.)	(0.13)	(0.16)	(0.09)	(0.08)	11,386
Black, non-Hispanic	23.3	16.2	4.4	2.7	
(s.e.)	(0.21)	(0.18)	(0.16)	(0.11)	2,307
Hispanic	23.8	16.6	4.0	3.1	
(s.e.)	(0.18)	(0.18)	(0.15)	(0.09)	1,437
Asian	24.1	18.2	2.9	3.0	
(s.e.)	(0.22)	(0.29)	(0.27)	(0.18)	677
Native American	22.6	15.3	4.4	2.9	
(s.e.)	(0.25)	(0.40)	(0.25)	(0.16)	84
1992 graduates					
Total*	23.8	17.3	3.8	2.7	
(s.e.)	(0.09)	(0.09)	(0.06)	(0.03)	11,707
Sex					
Male	23.6	16.8	3.9	2.9	
(s.e.)	(0.10)	(0.11)	(0.07)	(0.05)	5,760
Female	23.9	17.9	3.6	2.5	
(s.e.)	(0.10)	(0.10)	(0.07)	(0.04)	5,917
Race-ethnicity					
White, non-Hispanic	23.8	17.5	3.7	2.6	
(s.e.)	(0.10)	(0.10)	(0.07)	(0.04)	8,269
Black, non-Hispanic	23.2	16.6	3.9	2.7	
(s.e.)	(0.25)	(0.32)	(0.11)	(0.10)	1,023
Hispanic	23.6	16.8	3.8	3.0	
(s.e.)	(0.12)	(0.16)	(0.13)	(0.07)	1,365
Asian	24.5	18.4	3.2	2.9	
(s.e.)	(0.21)	(0.28)	(0.22)	(0.08)	855
Native American	23.4	15.9	4.5	3.0	
(s.e.)	(0.33)	(0.33)	(0.35)	(0.22)	118

First row, first column reads: 1982 public high school graduates earned on average a total of 21.4 Carnegie units in high school.
*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 52—Percentage of public high school graduates by number of Carnegie units accumulated in vocational education, by sex and race–ethnicity: 1982–1992

Sex and race–ethnicity	Number of Carnegie units in vocational education									Un-weighted Ns
	0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	
1982 graduates										
Total*	6.0	11.4	12.5	12.5	12.6	12.0	9.8	8.5	14.7	
(s.e.)	(0.37)	(0.50)	(0.48)	(0.44)	(0.50)	(0.48)	(0.44)	(0.38)	(0.63)	9,510
Sex										
Male	6.1	11.4	12.9	12.3	13.4	11.8	8.7	9.0	14.5	
(s.e.)	(0.49)	(0.62)	(0.63)	(0.63)	(0.73)	(0.70)	(0.58)	(0.57)	(0.81)	4,622
Female	6.0	11.3	12.1	12.8	11.8	12.3	10.9	8.0	14.9	
(s.e.)	(0.45)	(0.67)	(0.67)	(0.67)	(0.65)	(0.66)	(0.57)	(0.46)	(0.78)	4,888
Race–ethnicity										
White, non-Hispanic	7.2	12.0	12.6	12.8	11.8	11.7	9.1	8.4	14.4	
(s.e.)	(0.48)	(0.59)	(0.59)	(0.55)	(0.60)	(0.57)	(0.50)	(0.45)	(0.69)	5,604
Black, non-Hispanic	1.9	9.8	11.9	12.7	16.2	15.2	10.7	7.7	13.9	
(s.e.)	(0.34)	(1.42)	(1.22)	(1.15)	(1.37)	(1.38)	(1.29)	(0.95)	(1.87)	1,326
Hispanic	2.5	7.8	11.3	11.1	14.3	11.6	12.6	9.6	19.2	
(s.e.)	(0.42)	(0.79)	(1.02)	(1.03)	(1.16)	(0.99)	(1.10)	(1.14)	(1.49)	2,045
Asian	12.1	20.1	19.1	14.4	13.4	7.8	5.3	3.4	4.4	
(s.e.)	(2.02)	(2.78)	(3.17)	(2.06)	(2.26)	(3.22)	(1.71)	(1.21)	(1.69)	295
Native American	3.3	7.2	10.9	9.0	10.1	21.0	17.8	8.8	11.9	
(s.e.)	(1.31)	(2.15)	(3.23)	(2.68)	(2.97)	(6.57)	(9.70)	(3.16)	(3.06)	161
1987 graduates										
Total*	5.8	12.3	14.4	13.0	12.8	11.4	9.1	8.0	13.2	
(s.e.)	(0.57)	(0.49)	(0.46)	(0.42)	(0.42)	(0.40)	(0.32)	(0.40)	(0.60)	24,426
Sex										
Male	5.2	11.9	14.4	12.7	12.5	12.2	8.7	8.2	14.0	
(s.e.)	(0.50)	(0.59)	(0.61)	(0.45)	(0.41)	(0.55)	(0.39)	(0.50)	(0.72)	12,251
Female	6.3	12.6	14.3	13.2	13.2	10.7	9.4	7.9	12.5	
(s.e.)	(0.73)	(0.59)	(0.54)	(0.56)	(0.68)	(0.48)	(0.46)	(0.48)	(0.71)	12,105
Race–ethnicity										
White, non-Hispanic	5.8	12.2	13.9	12.7	12.5	11.2	8.9	8.0	14.8	
(s.e.)	(0.67)	(0.64)	(0.53)	(0.46)	(0.52)	(0.46)	(0.43)	(0.50)	(0.81)	15,628
Black, non-Hispanic	4.7	10.9	12.6	13.2	14.4	13.5	10.2	9.8	10.7	
(s.e.)	(0.91)	(1.19)	(1.05)	(0.83)	(0.98)	(0.85)	(0.73)	(1.04)	(0.92)	3,584
Hispanic	4.5	11.4	15.5	14.5	13.5	13.7	10.9	7.5	8.5	
(s.e.)	(0.83)	(1.16)	(1.27)	(1.34)	(1.18)	(0.94)	(1.02)	(1.24)	(1.32)	2,782
Asian	12.0	20.4	24.2	15.7	10.5	6.2	4.9	2.6	3.6	
(s.e.)	(2.71)	(2.67)	(2.33)	(3.33)	(1.89)	(1.31)	(1.29)	(0.76)	(1.00)	844
Native American	3.0	5.9	14.9	14.3	15.4	15.2	9.8	10.0	11.5	
(s.e.)	(1.21)	(1.36)	(2.14)	(3.06)	(2.46)	(2.39)	(1.48)	(1.63)	(2.17)	302

Table 52—Percentage of public high school graduates by number of Carnegie units accumulated in vocational education, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Number of Carnegie units in vocational education 0.00–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00–4.99	5.00–5.99	6.00–6.99	7.00–7.99	8.00 or more	Un-weighted Ns
1990 graduates										
Total*	7.5	15.5	15.6	13.6	11.7	9.4	8.4	6.7	11.5	
(s.e.)	(0.70)	(0.60)	(0.49)	(0.46)	(0.40)	(0.39)	(0.39)	(0.30)	(0.71)	16,456
Sex										
Male	6.7	14.2	15.4	14.8	11.5	9.7	8.2	6.9	12.5	
(s.e.)	(0.66)	(0.67)	(0.60)	(0.50)	(0.47)	(0.41)	(0.50)	(0.45)	(0.74)	7,821
Female	8.3	16.6	15.8	12.5	12.0	9.2	8.6	6.5	10.6	
(s.e.)	(0.85)	(0.73)	(0.67)	(0.60)	(0.49)	(0.53)	(0.44)	(0.40)	(0.83)	8,626
Race-ethnicity										
White, non-Hispanic	8.0	16.0	15.4	13.1	11.2	8.9	7.9	6.8	12.7	
(s.e.)	(0.88)	(0.63)	(0.58)	(0.52)	(0.46)	(0.45)	(0.38)	(0.34)	(0.88)	11,386
Black, non-Hispanic	4.4	10.8	15.4	15.1	13.7	11.9	10.7	8.0	10.0	
(s.e.)	(0.67)	(1.21)	(1.15)	(1.00)	(0.68)	(0.88)	(1.09)	(0.96)	(1.30)	2,307
Hispanic	6.4	15.0	16.5	14.8	12.6	10.8	9.1	6.1	8.7	
(s.e.)	(0.80)	(1.83)	(1.07)	(1.05)	(1.31)	(1.23)	(0.85)	(0.63)	(0.96)	1,437
Asian	12.6	23.5	18.6	16.6	11.9	6.8	5.2	3.0	1.8	
(s.e.)	(2.70)	(3.19)	(2.25)	(1.87)	(2.02)	(1.75)	(1.46)	(0.91)	(0.73)	677
Native American	6.5	10.9	12.3	10.5	14.6	15.7	11.8	11.1	6.6	
(s.e.)	(2.69)	(4.48)	(3.56)	(3.60)	(4.13)	(4.82)	(3.10)	(5.24)	(2.91)	84
1992 graduates										
Total*	9.3	16.8	16.0	14.4	12.5	10.0	7.2	5.2	8.6	
(s.e.)	(0.64)	(0.76)	(0.76)	(0.62)	(0.58)	(0.50)	(0.36)	(0.34)	(0.48)	11,707
Sex										
Male	8.2	14.9	15.9	15.5	12.6	10.7	7.2	6.0	9.1	
(s.e.)	(0.58)	(1.04)	(1.30)	(1.08)	(0.84)	(0.77)	(0.45)	(0.54)	(0.64)	5,760
Female	10.6	18.7	16.2	13.6	12.5	9.3	7.2	4.2	7.7	
(s.e.)	(1.18)	(1.03)	(0.85)	(0.64)	(0.74)	(0.57)	(0.53)	(0.37)	(0.63)	5,917
Race-ethnicity										
White, non-Hispanic	10.2	17.5	15.9	14.4	11.5	9.5	7.0	4.9	9.2	
(s.e.)	(0.82)	(0.90)	(0.92)	(0.76)	(0.62)	(0.54)	(0.39)	(0.35)	(0.57)	8,269
Black, non-Hispanic	5.5	11.2	17.9	15.8	16.8	12.6	8.3	5.7	6.1	
(s.e.)	(1.01)	(1.44)	(2.60)	(2.19)	(2.20)	(1.75)	(1.20)	(1.00)	(0.95)	1,023
Hispanic	6.5	17.5	16.1	14.5	13.5	11.0	8.4	6.6	5.9	
(s.e.)	(1.07)	(2.72)	(1.48)	(1.49)	(1.75)	(1.49)	(1.50)	(1.81)	(0.93)	1,365
Asian	14.5	21.6	14.2	12.6	14.5	8.8	5.3	2.6	6.0	
(s.e.)	(1.57)	(2.37)	(1.75)	(1.61)	(2.27)	(1.73)	(1.47)	(0.82)	(3.22)	855
Native American	4.6	5.9	16.1	17.2	18.2	11.5	7.3	9.3	9.8	
(s.e.)	(2.15)	(1.98)	(3.77)	(4.54)	(3.81)	(2.99)	(2.39)	(3.44)	(4.25)	118

First row, first column reads: Of 1982 public high school graduates, 6.0 percent earned fewer than 1.00 Carnegie units in vocational education.

*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 53—Average number of Carnegie units accumulated in vocational education by public high school graduates by type of vocational education, by sex and race-ethnicity: 1982–1992

Sex and race-ethnicity	Total	Consumer & homemaking education	General labor market preparation			Specific labor market preparation	Unweighted Ns
			Industrial arts	Career education	Total[1]		
1982 graduates							
Total[2]	4.6	0.7	0.2	0.2	1.1	2.9	
(s.e.)	(0.06)	(0.02)	(0.01)	(0.01)	(0.02)	(0.05)	9,510
Sex							
Male	4.6	0.3	0.3	0.3	1.0	3.3	
(s.e.)	(0.07)	(0.01)	(0.02)	(0.02)	(0.03)	(0.07)	4,622
Female	4.7	1.0	0.0	0.2	1.1	2.5	
(s.e.)	(0.07)	(0.03)	(0.01)	(0.01)	(0.02)	(0.05)	4,888
Race-ethnicity							
White, non-Hispanic	4.5	0.6	0.2	0.2	1.0	2.9	
(s.e.)	(0.06)	(0.02)	(0.01)	(0.01)	(0.02)	(0.05)	5,604
Black, non-Hispanic	4.8	0.9	0.1	0.3	1.1	2.8	
(s.e.)	(0.14)	(0.05)	(0.02)	(0.04)	(0.05)	(0.14)	1,326
Hispanic	5.3	0.9	0.2	0.3	1.2	3.2	
(s.e.)	(0.10)	(0.04)	(0.03)	(0.03)	(0.04)	(0.10)	2,045
Asian	3.1	0.3	0.1	0.3	1.0	1.9	
(s.e.)	(0.18)	(0.03)	(0.03)	(0.07)	(0.07)	(0.15)	295
Native American	5.1	0.5	0.2	0.3	1.3	3.3	
(s.e.)	(0.26)	(0.07)	(0.06)	(0.11)	(0.12)	(0.24)	161
1987 graduates							
Total[2]	4.4	0.6	0.1	0.1	0.9	2.9	
(s.e.)	(0.07)	(0.02)	(0.01)	(0.01)	(0.02)	(0.05)	24,426
Sex							
Male	4.5	0.3	0.2	0.1	0.9	3.3	
(s.e.)	(0.08)	(0.02)	(0.02)	(0.01)	(0.03)	(0.07)	12,251
Female	4.4	0.9	0.0	0.1	0.9	2.6	
(s.e.)	(0.08)	(0.03)	(0.01)	(0.01)	(0.03)	(0.05)	12,105
Race-ethnicity							
White, non-Hispanic	4.5	0.2	0.1	0.9	3.0	3.0	
(s.e.)	(0.09)	(0.02)	(0.01)	(0.01)	(0.03)	(0.07)	15,628
Black, non-Hispanic	4.5	0.7	0.1	0.2	1.0	2.8	
(s.e.)	(0.10)	(0.03)	(0.01)	(0.03)	(0.03)	(0.09)	3,584
Hispanic	4.3	0.6	0.1	0.3	1.0	2.7	
(s.e.)	(0.15)	(0.06)	(0.02)	(0.04)	(0.06)	(0.09)	2,782
Asian	2.9	0.3	0.0	0.1	0.7	1.9	
(s.e.)	(0.26)	(0.07)	(0.01)	(0.03)	(0.09)	(0.13)	844
Native American	4.7	0.6	0.2	0.1	0.9	3.2	
(s.e.)	(0.18)	(0.06)	(0.07)	(0.02)	(0.10)	(0.16)	302

Table 53—Average number of Carnegie units accumulated in vocational education by public high school graduates by type of vocational education, by sex and race-ethnicity: 1982–1992—Continued

Sex and race-ethnicity	Total	Consumer & homemaking education	General labor market preparation			Specific labor market preparation	Unweighted Ns
			Industrial arts	Career education	Total[1]		
1990 graduates							
Total[2]	4.1	0.6	0.1	0.2	0.8	2.7	
(s.e.)	(0.08)	(0.03)	(0.01)	(0.01)	(0.03)	(0.07)	16,456
Sex							
Male	4.2	0.3	0.2	0.2	0.8	3.1	
(s.e.)	(0.08)	(0.02)	(0.01)	(0.02)	(0.03)	(0.07)	7,821
Female	4.0	0.8	0.0	0.2	0.9	2.3	
(s.e.)	(0.09)	(0.04)	(0.01)	(0.01)	(0.03)	(0.08)	8,626
Race-ethnicity							
White, non-Hispanic	4.1	0.5	0.1	0.2	0.8	2.8	
(s.e.)	(0.09)	(0.03)	(0.01)	(0.02)	(0.04)	(0.07)	11,386
Black, non-Hispanic	4.4	0.8	0.1	0.2	1.0	2.6	
(s.e.)	(0.17)	(0.06)	(0.02)	(0.03)	(0.05)	(0.14)	2,307
Hispanic	4.0	0.5	0.1	0.2	0.8	2.6	
(s.e.)	(0.15)	(0.05)	(0.01)	(0.02)	(0.04)	(0.11)	1,437
Asian	2.9	0.3	0.1	0.2	0.7	1.9	
(s.e.)	(0.27)	(0.03)	(0.03)	(0.07)	(0.10)	(0.16)	677
Native American	4.4	0.7	0.2	0.1	0.8	2.9	
(s.e.)	(0.25)	(0.13)	(0.09)	(0.04)	(0.17)	(0.19)	84
1992 graduates							
Total[2]	3.8	0.5	0.1	0.2	0.7	2.5	
(s.e.)	(0.06)	(0.02)	(0.01)	(0.01)	(0.02)	(0.05)	11,707
Sex							
Male	3.9	0.4	0.2	0.1	0.7	2.9	
(s.e.)	(0.07)	(0.02)	(0.02)	(0.01)	(0.03)	(0.07)	5,760
Female	3.6	0.7	0.0	0.2	0.7	2.2	
(s.e.)	(0.07)	(0.02)	(0.00)	(0.01)	(0.02)	(0.06)	5,917
Race-ethnicity							
White, non-Hispanic	3.7	0.5	0.1	0.1	0.7	2.5	
(s.e.)	(0.07)	(0.02)	(0.01)	(0.01)	(0.02)	(0.05)	8,269
Black, non-Hispanic	3.9	0.7	0.1	0.2	0.7	2.5	
(s.e.)	(0.11)	(0.06)	(0.03)	(0.03)	(0.05)	(0.09)	1,023
Hispanic	3.8	0.5	0.1	0.2	0.7	2.6	
(s.e.)	(0.13)	(0.03)	(0.01)	(0.03)	(0.05)	(0.11)	1,365
Asian	3.2	0.4	0.1	0.2	0.6	2.3	
(s.e.)	(0.22)	(0.04)	(0.01)	(0.04)	(0.05)	(0.20)	855
Native American	4.5	0.5	0.1	0.2	0.7	3.4	
(s.e.)	(0.35)	(0.08)	(0.04)	(0.05)	(0.09)	(0.35)	118

First row, first column reads: 1982 public high school graduates earned on average a total of 4.6 Carnegie units in vocational education.

[1] Participation in Typewriting I and some miscellaneous general labor market skills courses—such as business math, business English, and vocational English—are not shown separately.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 54—Percentage of public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by sex and race-ethnicity: 1982–1992

Sex and race-ethnicity	Number of Carnegie units in specific labor market preparation						Unweighted Ns
	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	
1982 graduates							
Total*	13.5	7.3	18.5	16.3	13.3	31.2	
(s.e.)	(0.53)	(0.41)	(0.53)	(0.54)	(0.48)	(0.80)	9,510
Sex							
Male	10.6	6.6	16.5	15.6	14.0	36.8	
(s.e.)	(0.62)	(0.51)	(0.74)	(0.75)	(0.69)	(1.16)	4,622
Female	16.1	8.0	20.4	17.0	12.6	25.9	
(s.e.)	(0.75)	(0.59)	(0.76)	(0.76)	(0.56)	(0.91)	4,888
Race-ethnicity							
White, non-Hispanic	14.0	7.4	18.7	16.3	12.7	30.9	
(s.e.)	(0.63)	(0.48)	(0.64)	(0.67)	(0.57)	(0.93)	5,604
Black, non-Hispanic	12.6	7.0	18.9	17.9	14.2	29.4	
(s.e.)	(1.29)	(0.97)	(1.52)	(1.41)	(1.31)	(2.20)	1,326
Hispanic	10.4	6.5	17.0	15.8	16.2	34.2	
(s.e.)	(1.01)	(0.76)	(1.23)	(1.18)	(1.19)	(1.70)	2,045
Asian	23.2	9.0	22.1	17.4	11.3	17.0	
(s.e.)	(3.36)	(1.93)	(2.39)	(2.53)	(3.31)	(3.11)	295
Native American	7.0	3.9	17.2	12.0	15.8	44.1	
(s.e.)	(2.23)	(1.50)	(3.77)	(2.70)	(3.69)	(8.05)	161
1987 graduates							
Total*	11.5	7.6	20.2	16.1	13.2	31.5	
(s.e.)	(0.61)	(0.56)	(0.53)	(0.42)	(0.44)	(0.95)	24,426
Sex							
Male	8.7	6.5	18.0	16.1	13.8	36.9	
(s.e.)	(0.61)	(0.59)	(0.63)	(0.49)	(0.55)	(1.18)	12,251
Female	14.2	8.7	22.1	16.0	12.5	26.5	
(s.e.)	(0.77)	(0.66)	(0.69)	(0.55)	(0.61)	(1.03)	12,105
Race-ethnicity							
White, non-Hispanic	11.8	7.0	19.5	15.9	13.1	32.8	
(s.e.)	(0.71)	(0.66)	(0.71)	(0.51)	(0.53)	(1.15)	15,628
Black, non-Hispanic	11.7	8.5	19.3	15.3	14.7	30.5	
(s.e.)	(1.24)	(1.21)	(1.20)	(0.70)	(0.96)	(1.66)	3,584
Hispanic	10.9	7.1	21.1	18.5	13.0	29.4	
(s.e.)	(1.19)	(0.83)	(1.28)	(1.07)	(1.02)	(2.13)	2,782
Asian	17.2	11.4	25.7	24.1	9.0	12.7	
(s.e.)	(2.98)	(3.38)	(2.74)	(2.43)	(1.73)	(2.17)	844
Native American	7.8	3.1	20.5	17.3	13.7	37.5	
(s.e.)	(2.73)	(1.04)	(2.67)	(2:92)	(2.67)	(3.22)	302

Table 54—Percentage of public high school graduates by number of Carnegie units accumulated in specific labor market preparation courses, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Number of Carnegie units in specific labor market preparation						Un-weighted Ns
	0.00	0.01–0.99	1.00–1.99	2.00–2.99	3.00–3.99	4.00 or more	
1990 graduates							
Total*	13.3	8.9	22.1	15.6	12.2	28.0	
(s.e.)	(0.93)	(0.54)	(0.56)	(0.44)	(0.47)	(1.01)	16,456
Sex							
Male	9.1	7.0	21.0	16.0	14.1	32.9	
(s.e.)	(0.66)	(0.50)	(0.75)	(0.61)	(0.49)	(1.19)	7,821
Female	17.1	10.6	23.0	15.3	10.5	23.5	
(s.e.)	(1.27)	(0.67)	(0.69)	(0.59)	(0.60)	(1.24)	8,626
Race-ethnicity							
White, non-Hispanic	13.7	8.7	21.5	15.3	11.5	29.4	
(s.e.)	(0.99)	(0.59)	(0.58)	(0.53)	(0.49)	(1.12)	11,386
Black, non-Hispanic	12.7	7.4	22.6	16.5	14.1	26.7	
(s.e.)	(1.85)	(0.87)	(1.51)	(1.35)	(1.11)	(2.53)	2,307
Hispanic	9.7	10.7	22.8	16.9	14.1	25.7	
(s.e.)	(1.08)	(1.12)	(1.32)	(1.15)	(1.07)	(1.82)	1,437
Asian	16.9	13.0	27.6	16.0	13.1	13.4	
(s.e.)	(2.05)	(2.54)	(2.64)	(1.26)	(2.84)	(2.36)	677
Native American	8.5	9.8	18.8	16.0	13.1	33.8	
(s.e.)	(2.56)	(2.99)	(4.81)	(4.12)	(3.71)	(4.61)	84
1992 graduates							
Total*	12.9	10.3	22.2	17.3	12.2	25.0	
(s.e.)	(0.56)	(0.80)	(0.82)	(0.70)	(0.49)	(0.82)	11,707
Sex							
Male	10.9	7.4	20.4	18.4	12.9	30.1	
(s.e.)	(0.66)	(0.97)	(1.33)	(1.16)	(0.75)	(1.24)	5,760
Female	15.0	13.4	24.1	16.2	11.7	19.8	
(s.e.)	(0.81)	(1.21)	(1.05)	(0.78)	(0.62)	(0.97)	5,917
Race-ethnicity							
White, non-Hispanic	13.5	10.8	22.2	17.0	12.3	24.2	
(s.e.)	(0.68)	(0.98)	(1.04)	(0.79)	(0.58)	(0.91)	8,269
Black, non-Hispanic	11.5	8.0	21.1	21.5	12.1	25.9	
(s.e.)	(1.37)	(1.81)	(2.00)	(2.91)	(1.22)	(2.14)	1,023
Hispanic	10.4	10.4	22.7	16.2	11.1	29.2	
(s.e.)	(1.27)	(2.34)	(2.04)	(1.57)	(1.37)	(2.95)	1,365
Asian	14.7	10.8	26.5	14.2	14.3	19.7	
(s.e.)	(1.63)	(1.31)	(2.60)	(1.56)	(2.45)	(3.47)	855
Native American	8.5	6.3	17.1	13.4	17.2	37.5	
(s.e.)	(2.63)	(1.89)	(4.14)	(3.74)	(4.15)	(5.35)	118

First row, first column reads: Of 1982 public high school graduates, 13.5 percent earned no Carnegie units in specific labor market preparation courses.

*Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 55—Percentage of public high school graduates completing one or more courses in specific labor market preparation programs, by sex and race-ethnicity: 1982–1992

Sex and race-ethnicity	Total	Agri-culture	Busi-ness	Marketing & distribution	Health^1	Occupational home economics	Trade & industry					Technical & commu-nications	Un-weighted Ns
							All	Construction	Precision production	Mechanics & repairs	Trans-portation		
							1982 graduates						
Total^2	86.6	10.1	53.0	9.2	4.5	11.5	39.7	7.2	33.3	13.0	0.5	12.9	
(s.e.)	(0.53)	(0.58)	(0.83)	(0.48)	(0.48)	(0.56)	(0.80)	(0.41)	(0.82)	(0.57)	(0.09)	(0.67)	9,510
Sex													
Male	89.4	14.9	38.7	8.6	3.2	4.6	64.7	14.0	53.8	24.8	0.7	15.2	
(s.e.)	(0.62)	(0.92)	(1.11)	(0.63)	(0.51)	(0.51)	(1.10)	(0.79)	(1.23)	(1.05)	(0.14)	(0.91)	4,622
Female	83.9	5.6	66.3	9.7	5.8	17.9	16.3	0.9	14.2	1.9	0.3	10.8	
(s.e.)	(0.75)	(0.54)	(1.02)	(0.61)	(0.56)	(0.87)	(0.84)	(0.19)	(0.81)	(0.30)	(0.09)	(0.71)	4,888
Race-ethnicity													
White, non-Hispanic	86.0	10.2	53.7	9.0	4.0	11.3	38.8	7.0	32.8	13.0	0.4	14.0	
(s.e.)	(0.63)	(0.66)	(0.98)	(0.56)	(0.50)	(0.66)	(0.92)	(0.49)	(0.93)	(0.67)	(0.10)	(0.80)	5,604
Black, non-Hispanic	87.5	7.1	52.4	12.3	7.1	13.6	36.3	7.7	28.3	8.4	0.6	11.3	
(s.e.)	(1.28)	(1.18)	(2.31)	(1.40)	(1.41)	(1.49)	(2.16)	(1.05)	(2.09)	(1.01)	(0.29)	(1.44)	1,326
Hispanic	89.6	12.4	53.3	8.3	5.0	12.0	44.7	8.4	37.7	15.0	0.5	8.2	
(s.e.)	(1.01)	(1.25)	(1.87)	(0.81)	(0.95)	(1.20)	(1.73)	(0.97)	(1.74)	(1.30)	(0.18)	(0.88)	2,045
Asian	76.8	4.0	37.8	3.1	4.9	4.7	44.6	4.0	36.9	12.3	1.5	15.5	
(s.e.)	(3.36)	(1.24)	(3.58)	(1.42)	(2.15)	(1.27)	(3.98)	(1.30)	(4.06)	(3.57)	(0.91)	(2.68)	295
Native American	93.0	15.3	41.2	8.2	5.4	8.6	59.4	8.6	53.2	32.4	0.0	6.4	
(s.e.)	(2.22)	(4.77)	(6.92)	(2.50)	(2.24)	(2.23)	(6.58)	(2.80)	(7.24)	(9.23)	(0.00)	(2.07)	161

Table 55—Percentage of public high school graduates completing one or more courses in specific labor market preparation programs, by sex and race-ethnicity: 1982–1992—Continued

Sex and race-ethnicity	Total	Agri-culture	Busi-ness	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & commu-nications	Un-weighted Ns
							All	Construction	Precision production	Mechanics & repairs	Trans-portation		
						1987 graduates							
Total[2]	88.5	8.0	53.8	8.7	4.9	10.6	37.5	5.0	32.4	10.6	0.5	24.7	
(s.e.)	(0.61)	(0.58)	(1.05)	(0.66)	(0.60)	(0.56)	(0.81)	(0.42)	(0.82)	(0.53)	(0.11)	(1.21)	24,426
Sex													
Male	91.3	12.5	42.5	7.4	2.7	5.2	61.3	9.9	52.3	20.1	0.8	28.2	
(s.e.)	(0.61)	(0.93)	(1.25)	(0.71)	(0.53)	(0.56)	(1.20)	(0.82)	(1.22)	(0.99)	(0.19)	(1.41)	12,251
Female	85.8	3.8	64.6	9.9	6.9	15.6	15.2	0.5	13.8	1.6	0.2	21.4	
(s.e.)	(0.77)	(1.14)	(0.79)	(0.74)	(0.80)	(0.76)	(0.09)	(0.75)	(0.22)	(0.05)	(1.22)	(1.22)	12,105
Race-ethnicity													
White, non-Hispanic	88.2	9.4	53.5	8.1	4.5	10.2	37.3	4.8	32.8	10.3	0.3	26.8	
(s.e.)	(0.71)	(0.68)	(1.32)	(0.79)	(0.69)	(0.69)	(0.84)	(0.41)	(0.87)	(0.62)	(0.08)	(1.47)	15,628
Black, non-Hispanic	88.3	5.8	54.2	9.6	6.1	12.4	33.7	5.6	26.6	8.0	0.4	16.8	
(s.e.)	(1.24)	(1.11)	(1.88)	(1.21)	(0.79)	(1.15)	(2.03)	(0.86)	(1.98)	(1.02)	(0.20)	(1.99)	3,584
Hispanic	89.1	4.1	53.3	9.5	7.0	10.9	44.6	5.7	38.7	13.9	0.2	14.5	
(s.e.)	(1.19)	(0.79)	(2.10)	(1.29)	(2.20)	(1.33)	(1.87)	(0.81)	(1.97)	(1.47)	(0.11)	(1.49)	2,782
Asian	82.8	0.4	46.1	8.1	9.5	4.5	30.7	0.8	24.8	8.7	0.5	29.8	
(s.e.)	(2.98)	(0.19)	(5.08)	(3.60)	(3.31)	(1.47)	(4.60)	(0.35)	(3.90)	(2.41)	(0.26)	(5.68)	844
Native American	92.2	10.5	64.7	4.0	7.7	7.2	50.9	11.8	44.7	10.3	0.6	20.2	
(s.e.)	(2.73)	(3.58)	(8.71)	(1.53)	(2.65)	(2.76)	(3.31)	(3.65)	(3.44)	(2.19)	(0.57)	(6.15)	302

Table 55—Percentage of public high school graduates completing one or more courses in specific labor market preparation programs, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Total	Agri-culture	Busi-ness	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & commu-nications	Un-weighted Ns
							All	Construction	Precision production	Mechanics & repairs	Trans-portation		
						1990 graduates							
Total[2]	86.8	9.1	55.0	9.4	2.8	9.9	36.2	5.5	30.9	10.1	1.1	25.7	
(s.e.)	(0.93)	(0.88)	(1.50)	(0.65)	(0.59)	(0.69)	(1.17)	(0.56)	(1.15)	(0.73)	(0.25)	(1.41)	16,456
Sex													
Male	90.9	13.8	46.9	7.9	2.0	4.3	59.3	10.5	50.1	19.3	2.1	28.7	
(s.e.)	(0.66)	(1.41)	(1.63)	(0.67)	(0.65)	(0.49)	(1.45)	(1.06)	(1.57)	(1.36)	(0.51)	(1.56)	7,821
Female	82.9	4.8	62.5	10.7	3.5	15.1	15.2	0.9	13.3	1.8	0.1	23.1	
(s.e.)	(1.27)	(0.61)	(1.64)	(0.76)	(0.59)	(1.12)	(1.04)	(0.20)	(0.96)	(0.29)	(0.05)	(1.46)	8,626
Race-ethnicity													
White, non-Hispanic	86.3	10.4	54.3	9.2	2.7	9.0	36.9	5.6	31.8	10.6	1.2	26.3	
(s.e.)	(0.99)	(1.06)	(1.63)	(0.75)	(0.62)	(0.76)	(1.17)	(0.65)	(1.12)	(0.88)	(0.32)	(1.50)	11,386
Black, non-Hispanic	87.3	4.8	60.2	10.1	3.9	13.2	31.4	5.7	25.1	6.3	0.3	24.9	
(s.e.)	(1.85)	(0.81)	(2.83)	(1.18)	(1.66)	(1.31)	(2.76)	(0.82)	(2.81)	(0.81)	(0.11)	(3.11)	2,307
Hispanic	90.3	8.7	56.6	12.3	2.2	15.9	37.8	3.7	31.5	12.0	0.7	21.4	
(s.e.)	(1.08)	(1.63)	(2.07)	(1.51)	(1.05)	(2.20)	(1.69)	(0.63)	(1.89)	(1.33)	(0.31)	(2.16)	1,437
Asian	83.2	4.0	44.4	4.4	2.1	4.4	39.1	3.4	33.5	11.3	0.6	30.0	
(s.e.)	(2.05)	(0.92)	(3.03)	(1.00)	(1.16)	(1.17)	(4.29)	(1.02)	(3.86)	(1.87)	(0.5)	(2.71)	677
Native American	91.5	17.7	57.5	10.7	0.8	8.6	36.9	6.2	33.8	9.6	0.0	16.2	
(s.e.)	(2.56)	(5.18)	(5.13)	(3.77)	(0.79)	(3.75)	(7.56)	(3.22)	(8.41)	(3.44)	(0.00)	(3.65)	84

Table 55—Percentage of public high school graduates completing one or more courses in specific labor market preparation programs, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Total	Agri-culture	Busi-ness	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & commu-nications	Un-weighted Ns
							All	Construction	Precision production	Mechanics & repairs	Trans-portation		
1992 graduates													
Total[2]	87.1	9.7	55.7	8.4	4.0	11.2	34.8	5.3	29.2	9.4	1.1	23.1	
(s.e.)	(0.56)	(0.65)	(1.04)	(0.52)	(0.44)	(0.63)	(0.91)	(0.38)	(0.86)	(0.51)	(0.22)	(0.90)	11,707
Sex													
Male	89.2	14.0	48.1	8.5	2.5	5.4	54.1	9.6	44.6	17.4	1.8	25.3	
(s.e.)	(0.66)	(1.08)	(1.47)	(0.77)	(0.42)	(0.60)	(1.47)	(0.72)	(1.44)	(1.0)	(0.38)	(1.13)	5,760
Female	85.0	5.3	63.5	8.5	5.5	16.6	15.8	1.1	14.0	1.5	0.4	21.2	
(s.e.)	(0.81)	(0.55)	(1.27)	(0.58)	(0.60)	(0.93)	(0.88)	(0.23)	(0.87)	(0.21)	(0.20)	(1.15)	5,917
Race-ethnicity													
White, non-Hispanic	86.6	10.7	55.5	8.7	3.6	10.5	34.5	4.8	29.5	9.5	1.1	23.2	
(s.e.)	(0.68)	(0.77)	(1.27)	(0.63)	(0.48)	(0.72)	(1.05)	(0.38)	(1.05)	(0.61)	(0.24)	(1.06)	8,269
Black, non-Hispanic	88.6	8.3	55.9	7.8	4.2	15.3	31.0	7.7	22.6	5.6	0.6	19.7	
(s.e.)	(1.37)	(2.00)	(2.47)	(1.24)	(1.08)	(2.11)	(2.87)	(1.61)	(2.32)	(0.90)	(0.29)	(2.70)	1,023
Hispanic	89.6	5.6	57.9	8.4	5.6	12.5	37.7	5.2	30.6	11.0	1.7	25.6	
(s.e.)	(1.27)	(0.78)	(2.61)	(1.42)	(1.68)	(1.61)	(2.45)	(0.98)	(2.40)	(1.49)	(1.35)	(2.69)	1,365
Asian	85.3	2.5	60.5	6.8	5.3	6.0	36.6	4.6	31.9	9.4	0.3	29.2	
(s.e.)	(1.63)	(0.65)	(3.20)	(1.10)	(1.32)	(1.10)	(3.52)	(1.78)	(3.63)	(1.96)	(0.18)	(3.41)	855
Native American	91.5	10.9	56.3	8.8	7.7	15.4	51.2	13.7	41.1	17.5	0.5	15.2	
(s.e.)	(2.63)	(4.26)	(5.33)	(3.86)	(3.04)	(3.18)	(6.43)	(3.80)	(5.49)	(4.40)	(0.51)	(4.71)	118

First row, first column reads: Of 1982 public high school graduates, 86.6 percent completed one or more courses in specific labor market preparation.

[1] "Health" includes only vocational courses preparing students for work in health fields. General health or personal health courses are classified as "personal use" in table 51.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may sum to greater than the total because graduates may have completed credits in more than one program area.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 56—Average number of Carnegie units accumulated by public high school graduates in specific labor market preparation programs, by sex and race-ethnicity: 1982–1992

Sex and race-ethnicity	Total	Agri-culture	Busi-ness	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & commu-nications	Un-weighted Ns
							All	Construction	Precision production	Mechanics & repairs	Trans-portation		
1982 graduates													
Total[2]	2.9	0.2	1.0	0.2	0.1	0.2	1.1	0.1	0.7	0.3	0.0	0.1	
(s.e.)	(0.05)	(0.01)	(0.02)	(0.01)	(0.01)	(0.01)	(0.03)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	9,510
Sex													
Male	3.3	0.3	0.5	0.1	0.0	0.1	2.0	0.3	1.2	0.5	0.0	0.1	
(s.e.)	(0.07)	(0.03)	(0.02)	(0.01)	(0.00)	(0.01)	(0.06)	(0.02)	(0.04)	(0.03)	(0.00)	(0.01)	4,622
Female	2.5	0.1	1.5	0.2	0.1	0.3	0.2	0.0	0.2	0.0	0.0	0.1	
(s.e.)	(0.05)	(0.01)	(0.04)	(0.02)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	4,888
Race-ethnicity													
White, non-Hispanic	2.9	0.2	1.1	0.1	0.0	0.2	1.0	0.1	0.6	0.3	0.0	0.1	
(s.e.)	(0.05)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)	(0.04)	(0.01)	(0.02)	(0.02)	(0.00)	(0.01)	5,604
Black, non-Hispanic	2.8	0.1	1.0	0.2	0.1	0.2	1.0	0.2	0.6	0.2	0.0	0.1	
(s.e.)	(0.14)	(0.02)	(0.06)	(0.03)	(0.03)	(0.04)	(0.09)	(0.04)	(0.06)	(0.03)	(0.01)	(0.02)	1,326
Hispanic	3.2	0.2	1.0	0.2	0.1	0.2	1.4	0.2	0.8	0.3	0.0	0.1	
(s.e.)	(0.10)	(0.03)	(0.05)	(0.02)	(0.02)	(0.03)	(0.09)	(0.03)	(0.06)	(0.05)	(0.00)	(0.01)	2,045
Asian	1.9	0.1	0.6	0.0	0.0	0.0	0.9	0.0	0.6	0.2	0.0	0.2	
(s.e.)	(0.15)	(0.02)	(0.09)	(0.02)	(0.01)	(0.02)	(0.10)	(0.02)	(0.07)	(0.07)	(0.02)	(0.05)	295
Native American	3.3	0.3	0.7	0.1	0.1	0.1	1.8	0.2	1.2	0.5	0.0	0.1	
(s.e.)	(0.24)	(0.09)	(0.13)	(0.04)	(0.04)	(0.04)	(0.40)	(0.09)	(0.30)	(0.16)	(0.00)	(0.02)	161

Table 56—Average numbe of Carnegie units accumulated by public high school graduates in specific labor market preparation programs, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Total	Agriculture	Business	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
							All	Construction	Precision production	Mechanics & repairs	Transportation		
						1987 graduates							
Total[2]	2.9	0.2	2.0	0.2	0.1	0.2	1.0	0.1	0.6	0.2	0.0	0.2	
(s.e.)	(0.06)	(0.02)	(0.03)	(0.01)	(0.01)	(0.01)	(0.03)	(0.01)	(0.02)	(0.01)	(0.00)	(0.01)	24,426
Sex													
Male	3.3	0.3	0.6	0.1	0.0	0.1	1.7	0.2	1.1	0.4	0.0	0.3	
(s.e.)	(0.07)	(0.03)	(0.02)	(0.01)	(0.00)	(0.01)	(0.06)	(0.02)	(0.04)	(0.02)	(0.00)	(0.02)	12,251
Female	2.6	0.1	1.3	0.2	0.1	0.3	0.2	0.0	0.2	0.0	0.0	0.2	
(s.e)	(0.05)	(0.01)	(0.04)	(0.02)	(0.01)	(0.02)	(0.02)	(0.00)	(0.02)	(0.00)	(0.00)	(0.01)	12,105
Race-ethnicity													
White, non-Hispanic	3.0	0.2	1.0	0.2	0.1	0.2	1.0	0.1	0.7	0.2	0.0	0.3	
(s.e.)	(0.07)	(0.02)	(0.03)	(0.02)	(0.01)	(0.01)	(0.03)	(0.01)	(0.03)	(0.01)	(0.00)	(0.02)	15,628
Black, non-Hispanic	2.8	0.1	1.0	0.2	0.1	0.3	0.7	0.1	0.5	0.2	0.0	0.2	
(s.e.)	(0.09)	(0.02)	(0.05)	(0.02)	(0.02)	(0.03)	(0.06)	(0.02)	(0.03)	(0.03)	(0.00)	(0.02)	3,584
Hispanic	2.7	0.1	1.0	0.2	0.1	0.2	1.0	0.1	0.6	0.2	0.0	0.1	
(s.e.)	(0.09)	(0.01)	(0.08)	(0.03)	(0.02)	(0.02)	(0.06)	(0.02)	(0.03)	(0.03)	(0.00)	(0.02)	2,782
Asian	1.9	0.0	0.6	0.2	0.1	0.1	0.4	0.0	0.3	0.1	0.0	0.3	
(s.e.)	(0.13)	(0.01)	(0.08)	(0.09)	(0.04)	(0.02)	(0.07)	(0.00)	(0.05)	(0.03)	(0.00)	(0.08)	844
Native American	3.2	0.2	1.1	0.1	0.1	0.1	1.3	0.2	0.8	0.2	0.0	0.2	
(s.e.)	(0.16)	(0.07)	(0.18)	(0.04)	(0.02)	(0.04)	(0.14)	(0.07)	(0.12)	(0.06)	(0.02)	(0.07)	302

Table 56—Average number of Carnegie units accumulated by public high school graduates in specific labor market preparation programs, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Total	Agriculture	Business	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry					Technical & communications	Unweighted Ns
							All	Construction	Precision production	Mechanics & repairs	Transportation		
1990 graduates													
Total[2]	2.7	0.2	0.9	0.2	0.0	0.2	0.9	0.1	0.6	0.2	0.0	0.2	
(s.e.)	(0.07)	(0.02)	(0.04)	(0.01)	(0.01)	(0.01)	(0.04)	(0.01)	(0.03)	(0.02)	(0.00)	(0.01)	16,456
Sex													
Male	3.1	0.3	0.6	0.1	0.0	0.1	1.6	0.2	1.0	0.4	0.0	0.3	
(s.e.)	(0.07)	(0.04)	(0.03)	(0.01)	(0.00)	(0.01)	(0.06)	(0.02)	(0.05)	(0.03)	(0.00)	(0.02)	7,821
Female	2.3	0.1	1.2	0.2	0.1	0.3	0.2	0.0	0.2	0.0	0.0	0.2	
(s.e.)	(0.08)	(0.02)	(0.05)	(0.02)	(0.01)	(0.02)	(0.02)	(0.00)	(0.02)	(0.00)	(0.00)	(0.01)	8,626
Race-ethnicity													
White, non-Hispanic	2.8	0.2	0.9	0.2	0.0	0.2	0.9	0.1	0.6	0.2	0.0	0.2	
(s.e.)	(0.07)	(0.03)	(0.03)	(0.01)	(0.01)	(0.01)	(0.05)	(0.01)	(0.04)	(0.02)	(0.00)	(0.01)	11,386
Black, non-Hispanic	2.6	0.1	1.1	0.2	0.0	0.3	0.6	0.1	0.4	0.1	0.0	0.2	
(s.e.)	(0.14)	(0.01)	(0.08)	(0.02)	(0.01)	(0.04)	(0.06)	(0.02)	(0.05)	(0.02)	(0.00)	(0.04)	2,307
Hispanic	2.6	0.2	1.0	0.2	0.0	0.3	0.7	0.0	0.5	0.2	0.0	0.2	
(s.e.)	(0.11)	(0.03)	(0.10)	(0.03)	(0.01)	(0.04)	(0.06)	(0.01)	(0.04)	(0.04)	(0.00)	(0.02)	1,437
Asian	1.8	0.0	0.7	0.1	0.0	0.0	0.7	0.0	0.5	0.2	0.0	0.3	
(s.e.)	(0.16)	(0.01)	(0.06)	(0.01)	(0.01)	(0.01)	(0.15)	(0.02)	(0.10)	(0.04)	(0.01)	(0.03)	677
Native American	2.9	0.4	1.0	0.2	0.0	0.1	0.9	0.1	0.7	0.1	0.0	0.2	
(s.e.)	(0.19)	(0.12)	(0.12)	(0.06)	(0.02)	(0.04)	(0.21)	(0.08)	(0.21)	(0.08)	(0.00)	(0.04)	84

Table 56—Average number of Carnegie units accumulated by public high school graduates in specific labor market preparation programs, by sex and race-ethnicity: 1982-1992—Continued

Sex and race-ethnicity	Total	Agriculture	Business	Marketing & distribution	Health[1]	Occupational home economics	Trade & industry: All	Trade & industry: Construction	Trade & industry: Precision production	Trade & industry: Mechanics & repairs	Trade & industry: Transportation	Technical & communications	Unweighted Ns
1992 graduates													
Total[2]	2.5	0.2	0.9	0.1	0.1	0.2	0.8	0.1	0.5	0.2	0.0	0.2	
(s.e.)	(0.05)	(0.01)	(0.02)	(0.01)	(0.01)	(0.02)	(0.03)	(0.01)	(0.02)	(0.01)	(0.00)	(0.01)	11,707
Sex													
Male	2.9	0.3	0.6	0.1	0.0	0.1	1.4	0.2	0.8	0.3	0.0	0.3	
(s.e.)	(0.07)	(0.03)	(0.02)	(0.01)	(0.00)	(0.01)	(0.05)	(0.02)	(0.03)	(0.03)	(0.00)	(0.02)	5,760
Female	2.2	0.1	1.1	0.1	0.1	0.3	0.2	0.0	0.2	0.0	0.0	0.2	
(s.e.)	(0.06)	(0.01)	(0.04)	(0.01)	(0.01)	(0.03)	(0.03)	(0.02)	(0.02)	(0.00)	(0.00)	(0.01)	5,917
Race-ethnicity													
White, non-Hispanic	2.5	0.2	0.8	0.1	0.0	0.2	0.8	0.1	0.5	0.2	0.0	0.2	
(s.e.)	(0.05)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)	(0.04)	(0.02)	(0.02)	(0.02)	(0.00)	(0.01)	8,269
Black, non-Hispanic	2.5	0.1	0.9	0.1	0.1	0.4	0.6	0.1	0.4	0.1	0.0	0.2	
(s.e.)	(0.09)	(0.02)	(0.05)	(0.03)	(0.03)	(0.06)	(0.06)	(0.02)	(0.05)	(0.02)	(0.00)	(0.03)	1,023
Hispanic	2.6	0.1	0.9	0.1	0.1	0.2	0.7	0.1	0.5	0.2	0.0	0.3	
(s.e.)	(0.11)	(0.01)	(0.06)	(0.02)	(0.03)	(0.04)	(0.06)	(0.02)	(0.04)	(0.03)	(0.01)	(0.04)	1,365
Asian	2.3	0.0	0.8	0.1	0.1	0.1	0.9	0.1	0.7	0.2	0.0	0.3	
(s.e.)	(0.20)	(0.01)	(0.16)	(0.01)	(0.03)	(0.01)	(0.18)	(0.03)	(0.17)	(0.04)	(0.00)	(0.03)	855
Native American	3.4	0.2	0.7	0.1	0.1	0.3	1.7	0.2	1.2	0.4	0.0	0.1	
(s.e.)	(0.35)	(0.09)	(0.10)	(0.04)	(0.03)	(0.12)	(0.34)	(0.06)	(0.33)	(0.13)	(0.00)	(0.04)	118

First row, first column reads: 1982 public high school graduates earned on average 2.9 Carnegie units in specific labor market preparation courses.

[1] "Health" includes only vocational courses preparing students for work in health fields. General health or personal health courses are classified as "personal use" in table 51.

[2] Included in the total are graduates who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, and the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 57—Average number of Carnegie units accumulated in academic subject areas by public high school graduates, by number of Carnegie units accumulated in vocational education: 1982–1992

Total number of vocational Carnegie units	Total English	Advanced or honors English	Total math	Calculus or advanced math	Total science	Chemistry or physics	Social studies	Fine arts	Foreign language	Unweighted Ns
1982 graduates										
Total*	3.9	0.2	2.6	0.6	2.2	0.5	3.2	1.4	1.0	
(s.e.)	(0.02)	(0.02)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	(0.02)	9,510
0.00-1.99	4.1	0.5	3.4	1.3	3.0	1.2	3.3	2.1	2.1	
(s.e.)	(0.04)	(0.04)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.07)	(0.05)	1,666
2.00-3.99	4.0	0.3	2.9	0.8	2.5	0.7	3.3	1.8	1.3	
(s.e.)	(0.03)	(0.02)	(0.03)	(0.03)	(0.03)	(0.02)	(0.03)	(0.06)	(0.04)	2,465
4.00-5.99	3.8	0.2	2.4	0.4	2.0	0.3	3.2	1.4	0.7	
(s.e.)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.05)	(0.03)	2,340
6.00-7.99	3.8	0.1	2.1	0.2	1.7	0.2	3.0	1.1	0.4	
(s.e.)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.05)	(0.02)	1,694
8.00 or more	3.6	0.1	1.8	0.1	1.5	0.1	2.8	0.7	0.2	
(s.e.)	(0.04)	(0.01)	(0.04)	(0.02)	(0.03)	(0.02)	(0.04)	(0.04)	(0.02)	1,345
1987 graduates										
Total*	4.0	0.4	3.0	0.8	2.5	0.7	3.3	1.4	1.4	
(s.e.)	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	24,426
0.00-1.99	4.2	1.0	3.6	1.5	3.2	1.3	3.6	2.3	2.5	
(s.e.)	(0.04)	(0.09)	(0.04)	(0.05)	(0.05)	(0.04)	(0.07)	(0.08)	(0.11)	4,092
2.00-3.99	4.1	0.5	3.4	1.1	2.9	0.9	3.5	1.6	1.8	
(s.e.)	(0.03)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)	(0.03)	(0.05)	(0.04)	6,735
4.00-5.99	4.0	0.3	3.0	0.6	2.4	0.5	3.3	1.3	1.1	
(s.e.)	(0.02)	(0.02)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.04)	(0.04)	6,013
6.00-7.99	3.9	0.1	2.5	0.3	2.0	0.2	3.1	1.0	0.6	
(s.e.)	(0.03)	(0.02)	(0.03)	(0.02)	(0.03)	(0.02)	(0.04)	(0.04)	(0.03)	4,337
8.00 or more	3.8	0.1	2.2	0.2	1.8	0.1	2.9	0.7	0.3	
(s.e.)	(0.04)	(0.04)	(0.04)	(0.01)	(0.04)	(0.02)	(0.05)	(0.04)	(0.03)	3,249

Table 57—Average number of Carnegie units accumulated in academic subject areas by public high school graduates, by number of Carnegie units accumulated in vocational education: 1982–1992—Continued

Total number of vocational Carnegie units	Total English	Advanced or honors English	Total math	Calculus or advanced math	Total science	Chemistry or physics	Social studies	Fine arts	Foreign language	Unweighted Ns
1990 graduates										
Total*	4.1	0.4	3.2	0.9	2.7	0.8	3.5	1.6	1.6	
(s.e.)	(0.03)	(0.04)	(0.03)	(0.02)	(0.03)	(0.02)	(0.05)	(0.05)	(0.05)	16,456
0.00–1.99	4.2	1.2	3.6	1.7	3.3	1.3	3.8	2.4	2.6	
(s.e.)	(0.06)	(0.16)	(0.03)	(0.07)	(0.05)	(0.03)	(0.07)	(0.07)	(0.07)	3,904
2.00–3.99	4.2	0.7	3.4	1.2	3.0	1.0	3.6	1.6	1.9	
(s.e.)	(0.04)	(0.06)	(0.03)	(0.03)	(0.04)	(0.03)	(0.04)	(0.06)	(0.05)	4,883
4.00–5.99	4.1	0.2	3.1	0.7	2.6	0.6	3.5	1.3	1.3	
(s.e.)	(0.03)	(0.03)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)	(0.05)	(0.05)	3,487
6.00–7.99	4.0	0.1	2.8	0.4	2.3	0.3	3.3	1.0	0.8	
(s.e.)	(0.03)	(0.02)	(0.04)	(0.03)	(0.04)	(0.02)	(0.05)	(0.06)	(0.04)	2,400
8.00 or more	3.8	0.1	2.4	0.2	2.0	0.1	3.0	0.7	0.4	
(s.e.)	(0.05)	(0.02)	(0.04)	(0.02)	(0.05)	(0.01)	(0.07)	(0.08)	(0.03)	1,782
1992 graduates										
Total*	4.2	0.5	3.4	1.0	2.9	0.9	3.6	1.6	1.7	
(s.e.)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)	11,707
0.00–1.99	4.3	1.0	3.8	1.6	3.4	1.4	3.8	2.3	2.6	
(s.e.)	(0.02)	(0.06)	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.07)	(0.06)	3,127
2.00–3.99	4.3	0.5	3.6	1.2	3.0	1.0	3.7	1.8	1.9	
(s.e.)	(0.03)	(0.04)	(0.03)	(0.04)	(0.05)	(0.03)	(0.04)	(0.07)	(0.05)	3,587
4.00–5.99	4.2	0.3	3.2	0.8	2.7	0.6	3.5	1.3	1.2	
(s.e.)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)	(0.03)	(0.04)	(0.05)	(0.05)	2,565
6.00–7.99	4.0	0.1	2.9	0.5	2.3	0.4	3.3	1.0	0.7	
(s.e.)	(0.03)	(0.02)	(0.03)	(0.03)	(0.04)	(0.02)	(0.03)	(0.05)	(0.04)	1,469
8.00 or more	3.9	0.1	2.6	0.3	2.1	0.2	3.1	0.7	0.4	
(s.e.)	(0.04)	(0.02)	(0.04)	(0.03)	(0.05)	(0.03)	(0.05)	(0.04)	(0.05)	959

First row, first column reads: 1982 public high school graduates earned on average a total of 3.9 Carnegie units in English.
*Included in the total are graduates who may be missing data on particular row variables.

SOURCE: The High School and Beyond Sophomore Cohort 1982 High School Transcript Study, the 1987 and 1990 High School Transcript Studies, the National Education Longitudinal Study, "Second Follow-Up and High School Transcript Files," 1992.

Table 58—Percentage of nonbaccalaureate students attending postsecondary institutions enrolled in academic and vocational programs, by selected educational characteristics: 1989–90[1]

Educational characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Total[3]	24.16	51.21	24.64	
(s.e.)	(1.002)	(1.227)	(1.464)	21,237
Attendance status[4]				
Full-time	24.35	60.16	15.49	
(s.e.)	(1.185)	(1.397)	(1.141)	13,263
Part-time	24.64	43.88	31.48	
(s.e.)	(1.335)	(1.587)	(2.048)	6,760
Term enrollment				
Fall	22.71	46.87	30.42	
(s.e.)	(1.451)	(1.847)	(2.215)	2,738
Spring	23.39	48.68	27.94	
(s.e.)	(2.159)	(2.841)	(3.462)	1,585
Both	25.88	49.79	24.34	
(s.e.)	(1.05)	(1.229)	(1.396)	11,619
Summers only	24.49	50.29	25.21	
(s.e.)	(4.436)	(4.792)	(4.282)	311
Award type being pursued				
Certificate	21.22	68.33	10.45	
(s.e.)	(1.758)	(2.132)	(1.448)	8,402
Associate degree	26.16	53.48	20.37	
(s.e.)	(1.373)	(1.544)	(1.742)	6,186
Other[5]	23.50	34.22	42.27	
(s.e.)	(1.605)	(1.885)	(2.673)	6,649
Institution type				
Public 4-year	32.82	34.69	32.49	
(s.e.)	(1.904)	(2.438)	(2.935)	2,688
Private, nonprofit 4-year	29.63	39.44	30.92	
(s.e.)	(3.175)	(3.282)	(2.423)	3,177
Public 2- to 3-year	25.38	45.75	28.87	
(s.e.)	(1.386)	(1.549)	(2.042)	5,300
Private, nonprofit less-than-4-year	24.04	65.30	10.66	
(s.e.)	(4.174)	(4.563)	(2.277)	2,055
Public vocational–technical	8.28	89.51	2.21	
(s.e.)	(1.766)	(1.965)	(0.714)	947
Private proprietary	12.28	85.75	1.97	
(s.e.)	(1.705)	(1.715)	(0.426)	7,070

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989–90, 24.16 percent reported majoring in academic programs.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

[4] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[5] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 59—Percentage of nonbaccalaureate students attending postsecondary institutions enrolled in academic and vocational programs, by selected student characteristics: 1989–90[1]

Student characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Total[3]	24.16	51.21	24.64	
(s.e.)	(1.002)	(1.227)	(1.464)	21,237
Sex				
Male	22.71	52.89	24.40	
(s.e.)	(1.138)	(1.355)	(1.453)	8,072
Female	26.38	47.86	25.76	
(s.e.)	(1.189)	(1.392)	(1.750)	11,943
Race-ethnicity				
White, non-Hispanic	25.26	49.17	25.57	
(s.e.)	(1.118)	(1.350)	(1.731)	15,094
Black, non-Hispanic	17.71	64.78	17.51	
(s.e.)	(1.596)	(2.377)	(1.960)	3,023
Hispanic	24.17	52.56	23.27	
(s.e.)	(2.357)	(2.738)	(2.489)	2,181
Asian	22.06	48.00	29.94	
(s.e.)	(2.958)	(3.391)	(3.599)	743
Native American	26.82	46.75	26.43	
(s.e.)	(6.040)	(5.840)	(5.294)	196
Age				
20 years or under	27.57	48.04	24.39	
(s.e.)	(1.370)	(1.276)	(1.528)	6,781
21–23 years	27.26	50.97	21.77	
(s.e.)	(1.581)	(1.658)	(1.510)	3,600
24–29 years	21.92	54.48	23.60	
(s.e.)	(1.340)	(1.601)	(1.633)	3,822
30 years or over	22.27	49.03	28.70	
(s.e.)	(1.235)	(1.927)	(2.393)	5,977
Dependency status				
Dependent	28.47	46.91	24.62	
(s.e.)	(1.303)	(1.211)	(1.404)	8,093
Independent	21.72	53.64	24.65	
(s.e.)	(1.050)	(1.547)	(1.818)	13,037
Working for pay				
Fall	26.05	48.87	25.08	
(s.e.)	(2.157)	(2.424)	(2.411)	1,263
Spring	24.16	55.88	19.96	
(s.e.)	(2.392)	(3.267)	(3.169)	752
Both	24.57	48.43	27.00	
(s.e.)	(1.174)	(1.363)	(1.727)	10,660
Neither	25.16	50.38	24.46	
(s.e.)	(1.325)	(1.612)	(1.793)	3,978

First row, first column reads: Of all nonbaccaluareate students attending postsecondary institutions in 1989–90, 24.16 percent reported majoring in academic programs.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 60—Percentage of nonbaccalaureate students attending postsecondary institutions enrolled in academic and vocational programs, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Total[3]	24.16	51.21	24.64	
(s.e.)	(1.002)	(1.227)	(1.464)	21,237
Financial aid status[4]				
Aided	21.42	62.14	16.45	
(s.e.)	(1.102)	(1.472)	(1.391)	12,824
Not aided	25.86	44.42	29.72	
(s.e.)	(1.188)	(1.321)	(1.638)	8,413
Family background,[5] dependent students				
Lowest quartile	25.38	54.67	19.95	
(s.e.)	(1.751)	(1.802)	(1.937)	2,808
Second quartile	27.48	51.45	21.07	
(s.e.)	(1.861)	(1.888)	(1.838)	2,092
Third quartile	30.27	41.72	28.01	
(s.e.)	(1.859)	(1.848)	(1.889)	1,731
Highest quartile	32.16	35.51	32.33	
(s.e.)	(2.432)	(2.134)	(2.540)	1,461
Family background,[5] independent students				
Lowest quartile	20.50	56.13	23.38	
(s.e.)	(1.653)	(2.149)	(1.958)	2,436
Second quartile	21.86	54.20	23.93	
(s.e.)	(1.588)	(2.164)	(2.515)	2,164
Third quartile	25.57	47.78	26.65	
(s.e.)	(1.817)	(2.303)	(2.444)	1,626
Highest quartile	26.16	45.06	28.78	
(s.e.)	(1.913)	(2.285)	(2.480)	1,433
Postsecondary GPA				
3.5 or over	25.54	48.76	25.70	
(s.e.)	(1.399)	(1.713)	(1.734)	4,392
2.6–3.49	27.19	50.26	22.56	
(s.e.)	(1.285)	(1.479)	(1.492)	4,919
1.6–2.59	25.69	50.82	23.49	
(s.e.)	(1.553)	(1.673)	(1.589)	3,861
Under 1.6	22.43	46.87	30.70	
(s.e.)	(1.957)	(2.100)	(2.339)	1,392

Table 60—Percentage of nonbaccalaureate students attending postsecondary institutions enrolled in academic and vocational programs, by selected special populations characteristics: 1989-90—Continued[1]

Special populations characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Disability status				
Disabled	23.41	49.14	27.44	
(s.e.)	(1.787)	(2.416)	(2.618)	1,445
Physically impaired	24.52	48.66	26.82	
(s.e.)	(2.122)	(2.632)	(2.743)	987
Learning disabled	17.14	52.36	30.49	
(s.e.)	(3.724)	(5.675)	(5.417)	194
Multiple disabilities	24.73	48.13	27.14	
(s.e.)	(4.381)	(4.385)	(4.762)	264
Not disabled	25.01	49.59	25.40	
(s.e.)	(1.104)	(1.256)	(1.569)	10,512
Missing information	23.08	53.92	23.00	
(s.e.)	(1.256)	(1.472)	(1.549)	9,280
Marital status				
Not married, no dependents	27.46	46.92	25.61	
(s.e.)	(1.206)	(1.259)	(1.452)	9,765
Not married, with dependents	19.88	59.11	21.01	
(s.e.)	(1.777)	(2.680)	(2.638)	1,522
Married, no dependents	20.64	51.69	27.66	
(s.e.)	(1.315)	(1.958)	(2.064)	1,994
Married, with dependents	22.37	50.52	27.11	
(s.e.)	(1.518)	(1.947)	(2.392)	3,095

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989-90, 24.16 percent reported majoring in academic programs.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

[4] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[5] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

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Table 61—Percentage of nonbaccalaureate students attending postsecondary institutions by type of institution, by selected educational characteristics: 1989–90[1]

Educational characteristics	Public 4-year	Private, nonprofit 4-year	Public 2- to 3-year	Private, nonprofit less-than-4-year	Public vocational-technical	Private proprietary	Unweighted Ns
Total[2]	10.20	4.69	66.78	2.63	2.30	13.40	
(s.e.)	(0.976)	(0.465)	(1.613)	(0.290)	(0.542)	(1.007)	21,237
Program type[3]							
Academic	13.86	5.75	70.17	2.62	0.79	6.81	
(s.e.)	(1.542)	(0.852)	(2.141)	(0.538)	(0.319)	(1.040)	4,495
Vocational	6.91	3.61	59.66	3.36	4.01	22.45	
(s.e.)	(0.931)	(0.483)	(1.985)	(0.438)	(0.902)	(1.627)	13,182
Other	13.45	5.89	78.25	1.14	0.21	1.07	
(s.e.)	(1.674)	(0.778)	(2.128)	(0.279)	(0.066)	(0.244)	3,560
Attendance status[4]							
Full-time	14.55	6.13	47.04	4.34	2.98	24.96	
(s.e.)	(1.733)	(0.751)	(2.052)	(0.565)	(0.553)	(1.891)	13,263
Part-time	6.87	3.60	83.13	1.01	1.54	3.84	
(s.e.)	(0.765)	(0.447)	(1.327)	(0.193)	(0.622)	(0.548)	6,760
Term enrollment							
Fall	7.32	3.39	75.85	1.52	2.50	9.42	
(s.e.)	(0.835)	(0.434)	(1.597)	(0.214)	(0.726)	(0.905)	2,738
Spring	5.74	2.43	73.60	2.99	3.28	11.95	
(s.e.)	(1.012)	(0.544)	(2.859)	(0.704)	(1.116)	(1.685)	1,585
Both	12.22	5.27	70.10	2.36	1.78	8.28	
(s.e.)	(1.251)	(0.576)	(1.538)	(0.217)	(0.369)	(0.548)	11,619
Summers only	13.93	3.25	55.75	2.12	2.91	22.04	
(s.e.)	(3.149)	(1.053)	(5.470)	(0.798)	(1.927)	(4.082)	311
Award type being pursued							
Certificate	12.17	7.14	35.14	4.41	6.72	34.42	
(s.e.)	(2.578)	(1.490)	(3.986)	(0.879)	(2.139)	(3.333)	8,402
Associate degree	2.85	1.65	87.54	2.34	0.04	5.59	
(s.e.)	(0.507)	(0.368)	(1.102)	(0.430)	(0.038)	(0.691)	6,186
Other[5]	19.60	7.29	60.92	1.67	2.15	8.38	
(s.e.)	(2.333)	(0.897)	(2.967)	(0.353)	(0.503)	(1.160)	6,649

First row, first column reads: Of all nonbaccalaureate students in 1989–90, 10.20 percent attended public 4-year postsecondary institutions.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[4] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[5] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 62—Percentage of nonbaccalaureate students attending postsecondary institutions by type of institution, by selected student characteristics: 1989–90[1]

Student characteristics	Public 4-year	Private, nonprofit 4-year	Public 2- to 3-year	Private, nonprofit less-than-4-year	Public vocational-technical	Private proprietary	Unweighted Ns
Total[2]	10.20	4.69	66.78	2.63	2.30	13.40	
(s.e.)	(0.976)	(0.465)	(1.613)	(0.290)	(0.542)	(1.007)	21,237
Sex							
Male	11.05	4.73	69.29	2.36	2.78	9.78	
(s.e.)	(1.173)	(0.560)	(1.744)	(0.329)	(0.884)	(0.931)	8,072
Female	10.07	4.75	68.13	2.60	1.89	12.56	
(s.e.)	(0.963)	(0.511)	(1.673)	(0.279)	(0.403)	(1.087)	11,943
Race–ethnicity							
White, non-Hispanic	11.21	5.08	68.38	2.48	2.51	10.34	
(s.e.)	(1.153)	(0.553)	(1.700)	(0.289)	(0.612)	(0.849)	15,094
Black, non-Hispanic	7.14	3.34	56.18	2.76	2.56	28.02	
(s.e.)	(1.057)	(0.843)	(4.450)	(0.788)	(0.721)	(3.720)	3,023
Hispanic	6.37	4.23	61.61	4.50	1.37	21.92	
(s.e.)	(1.333)	(1.048)	(4.018)	(1.828)	(0.542)	(3.296)	2,181
Asian	10.09	2.71	77.30	1.29	0.38	8.23	
(s.e.)	(2.541)	(0.510)	(3.200)	(0.318)	(0.173)	(1.450)	743
Native American	7.43	4.71	71.33	1.07	1.06	14.41	
(s.e.)	(1.864)	(1.733)	(4.845)	(0.382)	(0.567)	(3.665)	196
Age							
20 years or under	14.30	5.30	63.89	3.15	1.99	11.37	
(s.e.)	(1.647)	(0.684)	(1.964)	(0.438)	(0.432)	(0.851)	6,781
21–23 years	14.89	6.37	62.13	2.53	1.79	12.30	
(s.e.)	(1.649)	(0.752)	(2.071)	(0.317)	(0.327)	(1.022)	3,600
24–29 years	7.27	4.14	70.35	2.57	2.19	13.46	
(s.e.)	(0.771)	(0.501)	(1.736)	(0.401)	(0.466)	(1.165)	3,822
30 years or over	6.60	3.67	75.86	1.84	2.83	9.19	
(s.e.)	(0.761)	(0.473)	(1.697)	(0.267)	(0.993)	(0.829)	5,977
Dependency status							
Dependent	16.37	6.44	62.58	3.08	1.65	9.88	
(s.e.)	(1.763)	(0.771)	(1.978)	(0.397)	(0.343)	(0.752)	8,093
Independent	6.66	3.62	69.46	2.33	2.65	15.27	
(s.e.)	(0.660)	(0.402)	(1.733)	(0.303)	(0.693)	(1.284)	13,037
Working for pay							
Fall	19.66	6.68	55.22	3.81	1.62	13.01	
(s.e.)	(2.397)	(0.930)	(2.711)	(0.608)	(0.451)	(1.405)	1,263
Spring	11.03	3.94	55.95	3.03	4.20	21.85	
(s.e.)	(2.015)	(0.745)	(3.344)	(0.664)	(1.171)	(2.225)	752
Both	9.97	4.51	74.36	2.01	1.88	7.27	
(s.e.)	(0.957)	(0.486)	(1.476)	(0.246)	(0.544)	(0.605)	10,660
Neither	8.39	3.49	68.15	2.72	3.34	13.91	
(s.e.)	(0.955)	(0.461)	(1.832)	(0.365)	(0.699)	(1.119)	3,978

First row, first column reads: Of all nonbaccalaureate students in 1989–90, 10.20 percent attended public 4-year postsecondary institutions.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 63—Percentage of nonbaccalaureate students attending postsecondary institutions by type of institution, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Public 4-year	Private, nonprofit 4-year	Public 2- to 3-year	Private, nonprofit less-than-4-year	Public vocational-technical	Private proprietary	Unweighted Ns
Total[2]	10.20	4.69	66.78	2.63	2.30	13.40	
(s.e.)	(0.976)	(0.465)	(1.613)	(0.290)	(0.542)	(1.007)	21,237
Financial aid status[3]							
Aided	10.33	6.91	48.17	4.08	2.27	28.23	
(s.e.)	(1.141)	(0.773)	(2.248)	(0.532)	(0.533)	(1.999)	12,824
Not aided	10.12	3.31	78.32	1.74	2.31	4.20	
(s.e.)	(0.970)	(0.375)	(1.387)	(0.227)	(0.614)	(0.430)	8,413
Family background,[4] dependent students							
Lowest quartile	11.65	5.76	56.18	3.76	2.80	19.86	
(s.e.)	(1.305)	(0.863)	(2.302)	(0.520)	(0.671)	(1.578)	2,808
Second quartile	14.52	5.47	67.08	3.07	1.49	8.37	
(s.e.)	(1.845)	(0.711)	(2.180)	(0.443)	(0.403)	(0.892)	2,092
Third quartile	17.23	5.65	67.59	2.65	1.32	5.55	
(s.e.)	(2.046)	(0.814)	(2.348)	(0.489)	(0.465)	(0.679)	1,731
Highest quartile	25.04	9.95	58.97	2.68	0.57	2.80	
(s.e.)	(3.103)	(1.645)	(3.326)	(0.614)	(0.194)	(0.464)	1,461
Family background,[4] independent students							
Lowest quartile	4.98	2.89	72.48	1.90	4.03	13.72	
(s.e.)	(0.636)	(0.460)	(1.915)	(0.377)	(1.005)	(1.314)	2,436
Second quartile	6.83	3.85	73.49	2.05	2.14	11.64	
(s.e.)	(0.814)	(0.527)	(1.811)	(0.297)	(0.673)	(1.098)	2,164
Third quartile	7.90	3.55	76.13	1.93	1.92	8.57	
(s.e.)	(0.962)	(0.476)	(1.752)	(0.295)	(0.624)	(0.868)	941
Highest quartile	9.90	4.67	75.76	2.04	1.51	6.13	
(s.e.)	(1.204)	(0.616)	(1.948)	(0.382)	(0.439)	(0.787)	1,433
Disability status							
Disabled	7.03	3.18	72.48	2.16	3.17	11.99	
(s.e.)	(0.984)	(0.504)	(2.036)	(0.339)	(0.620)	(1.246)	1,445
Physically impaired	7.16	3.17	72.34	2.27	3.09	11.97	
(s.e.)	(1.054)	(0.488)	(2.132)	(0.386)	(0.727)	(1.257)	987
Learning disabled	6.92	3.64	76.56	2.15	2.91	7.82	
(s.e.)	(1.852)	(1.108)	(3.643)	(0.753)	(1.900)	(1.664)	194
Multiple disabilities	6.58	2.77	69.21	1.73	3.74	15.98	
(s.e.)	(1.570)	(0.834)	(3.951)	(0.478)	(1.072)	(2.758)	264
Not disabled	11.29	4.69	70.98	2.15	2.10	8.79	
(s.e.)	(1.115)	(0.498)	(1.549)	(0.235)	(0.522)	(0.672)	10,512
Missing information	9.27	5.00	59.64	3.43	2.40	20.27	
(s.e.)	(0.898)	(0.521)	(1.961)	(0.473)	(0.641)	(1.645)	9,280

Table 63—Percentage of nonbaccalaureate students attending postsecondary institutions by type of institution, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Public 4-year	Private, nonprofit 4-year	Public 2- to 3-year	Private, nonprofit less-than-4-year	Public vocational-technical	Private proprietary	Unweighted Ns
Marital status							
Not married, no dependents	13.16	5.16	68.49	2.69	1.63	8.87	
(s.e.)	(1.375)	(0.588)	(1.700)	(0.306)	(0.328)	(0.670)	9,765
Not married, with dependents	5.57	2.47	67.01	2.36	2.47	20.13	
(s.e.)	(0.808)	(0.549)	(2.526)	(0.533)	(0.652)	(2.011)	1,522
Married, no dependents	7.51	3.99	75.08	2.08	3.12	8.22	
(s.e.)	(0.929)	(0.511)	(1.742)	(0.354)	(0.787)	(0.837)	1,994
Married, with dependents	6.42	3.46	76.89	1.51	3.04	8.69	
(s.e.)	(0.915)	(0.480)	(1.763)	(0.268)	(0.989)	(0.826)	3,095

First row, first column reads: Of all nonbaccalaureate students in 1989–90, 10.20 percent attended public 4-year postsecondary institutions.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[4] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 64—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected educational characteristics: 1989–90[1]

Educational characteristics	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Total[3]	32.82	34.69	32.49		29.63	39.44	30.92		25.38	45.75	28.87	
(s.e.)	(1.904)	(2.438)	(2.935)	2,688	(3.175)	(3.282)	(2.423)	3,177	(1.386)	(1.549)	(2.042)	5,300
Attendance status[4]												
Full-time	34.54	42.12	23.34		38.24	39.24	22.52		26.76	52.07	21.17	
(s.e.)	(2.162)	(2.747)	(3.129)	1,628	(3.789)	(3.715)	(2.893)	1,852	(1.930)	(2.008)	(2.015)	1,868
Part-time	30.63	23.73	45.64		20.24	38.60	41.17		25.06	43.13	31.81	
(s.e.)	(2.816)	(2.638)	(3.449)	911	(3.695)	(4.471)	(3.627)	1,123	(1.566)	(1.809)	(2.412)	3,218
Term enrollment												
Fall	35.79	27.05	37.16		26.89	33.95	39.16		22.74	42.93	34.32	
(s.e.)	(4.023)	(3.936)	(4.399)	287	(4.018)	(4.649)	(4.643)	327	(1.823)	(2.260)	(2.782)	879
Spring	28.77	20.93	50.30		26.74	37.45	35.82		25.25	42.77	31.97	
(s.e.)	(4.490)	(4.083)	(5.159)	187	(9.832)	(7.965)	(6.067)	168	(2.829)	(3.390)	(4.441)	614
Both	32.81	38.17	29.02		29.92	40.84	29.24		26.31	46.81	26.88	
(s.e.)	(2.047)	(2.552)	(2.985)	1,762	(3.213)	(3.465)	(2.671)	2,014	(1.407)	(1.602)	(1.870)	3,162
Summers only	25.85	21.56	52.60		—	—	—		31.64	40.62	27.74	
(s.e.)	(6.942)	(6.701)	(6.879)	63	—	—	—	24	(7.572)	(6.953)	(6.830)	62
Award type being pursued												
Certificate	37.89	45.98	16.14		35.16	42.71	22.14		25.27	57.66	17.07	
(s.e.)	(2.397)	(3.298)	(2.205)	764	(6.432)	(6.799)	(3.346)	1,151	(3.576)	(3.922)	(3.756)	741
Associate degree	31.25	56.92	11.83		20.20	69.29	10.51		26.37	51.26	22.37	
(s.e.)	(4.373)	(4.235)	(3.162)	369	(3.764)	(3.507)	(2.585)	482	(1.536)	(1.722)	(1.967)	3,148
Other[5]	30.67	24.30	45.03		28.52	26.83	44.65		23.31	28.46	48.22	
(s.e.)	(2.796)	(3.187)	(4.603)	1,555	(4.214)	(2.792)	(4.239)	1,544	(2.332)	(2.423)	(3.818)	1,411

First row, first column reads: Of all nonbaccalaureate students enrolled in public 4-year postsecondary institutions in 1989–90, 32.82 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

[4] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[5] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates within institution categories may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 65—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected educational characteristics: 1989-90[1]

Educational characteristics	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns
Total[4]	8.28	89.51	2.21		12.28	85.75	1.97		24.04	65.30	10.66	
(s.e.)	(1.766)	(1.965)	(0.714)	947	(1.705)	(1.715)	(0.426)	7,070	(4.174)	(4.563)	(2.277)	2,055
Attendance status[5]												
Full-time	8.86	90.01	1.13		11.88	86.75	1.37		26.82	64.52	8.66	
(s.e.)	(3.112)	(3.031)	(0.568)	663	(1.876)	(1.903)	(0.359)	5,678	(5.079)	(5.660)	(2.533)	1,574
Part-time	9.68	86.97	3.35		16.14	80.00	3.86		20.30	58.49	21.21	
(s.e.)	(3.537)	(4.847)	(1.661)	205	(3.942)	(4.080)	(1.957)	972	(4.693)	(5.074)	(4.953)	331
Term enrollment												
Fall	8.14	88.97	2.89		14.98	83.95	1.07		20.73	68.36	10.91	
(s.e.)	(2.564)	(2.680)	(1.563)	158	(2.425)	(2.370)	(0.389)	885	(5.431)	(5.918)	(3.454)	202
Spring	7.22	90.63	2.15		12.48	85.04	2.48		25.74	64.99	9.28	
(s.e.)	(4.013)	(3.585)	(1.177)	75	(3.177)	(3.454)	(1.832)	451	(9.656)	(9.785)	(3.273)	90
Both	8.25	89.92	1.83		13.69	84.83	1.48		24.03	65.36	10.61	
(s.e.)	(2.296)	(2.243)	(1.064)	527	(1.782)	(1.826)	(0.468)	2,922	(3.808)	(4.068)	(2.302)	1,232
Summers only	—	—	—		8.43	89.64	1.93		—	—	—	
(s.e.)	—	—	—	8	(2.887)	(3.207)	(1.238)	142	—	—	—	12
Award type being pursued												
Certificate	8.21	90.41	1.38		11.17	87.11	1.71		18.68	76.15	5.17	
(s.e.)	(2.152)	(2.152)	(0.436)	615	(2.226)	(2.237)	(0.434)	4,250	(5.522)	(6.326)	(2.175)	881
Associate degree	—	—	—		19.96	78.85	1.19		31.33	59.63	9.05	
(s.e.)	—	—	—	4	(3.010)	(2.999)	(0.488)	1,391	(6.779)	(6.438)	(2.521)	792
Other[6]	8.65	87.01	4.34		8.24	88.18	3.58		20.07	54.36	25.57	
(s.e.)	(3.745)	(5.439)	(2.147)	328	(2.138)	(2.662)	(1.681)	1,429	(7.260)	(8.761)	(7.913)	382

First row, first column reads: Of all nonbaccalaureate students enrolled in public vocational-technical institutes in 1989-90, 8.28 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] While students enrolled in these institutions are typically considered to be vocational, some declared they were enrolled in academic programs such as law, education, and journalism/communications.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[4] Included in the total are students who may be missing data on particular row variables.

[5] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[6] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

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Table 66—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected student characteristics: 1989–90[1]

Student characteristics	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
	Academic^2	Vocational^2	Other^2	Unweighted Ns	Academic^2	Vocational^2	Other^2	Unweighted Ns	Academic^2	Vocational^2	Other^2	Unweighted Ns
Total^3	32.82	34.69	32.49		29.63	39.44	30.92		25.38	45.75	28.87	
(s.e.)	(1.904)	(2.438)	(2.935)	2,688	(3.175)	(3.282)	(2.423)	3,177	(1.386)	(1.549)	(2.042)	5,300
Sex												
Male	28.20	40.56	31.24		29.42	40.71	29.87		23.39	49.19	27.43	
(s.e.)	(2.227)	(2.900)	(3.289)	1,188	(4.846)	(4.724)	(3.121)	1,341	(1.490)	(1.679)	(1.949)	2,233
Female	36.68	30.28	33.05		29.80	38.43	31.77		27.33	42.71	29.96	
(s.e.)	(2.246)	(2.340)	(3.056)	1,449	(2.850)	(3.131)	(2.836)	1,729	(1.641)	(1.753)	(2.406)	2,964
Race–ethnicity												
White, non-Hispanic	33.60	33.88	32.53		28.92	38.87	32.21		25.73	45.39	28.87	
(s.e.)	(2.149)	(2.728)	(3.154)	2,168	(3.431)	(3.512)	(2.708)	2,563	(1.520)	(1.736)	(2.403)	4,052
Black, non-Hispanic	26.83	38.78	34.39		26.29	48.29	25.42		21.86	54.22	23.92	
(s.e.)	(3.658)	(4.364)	(4.344)	82	(5.342)	(4.392)	(4.586)	39	(2.367)	(2.863)	(2.967)	649
Hispanic	31.34	37.80	30.86		36.94	37.87	25.19		28.63	40.10	31.27	
(s.e.)	(4.417)	(5.142)	(4.348)	157	(3.870)	(4.326)	(4.767)	252	(3.546)	(3.349)	(3.521)	405
Asian	32.68	37.69	29.64		—	—	—		20.91	45.66	33.44	
(s.e.)	(5.673)	(5.271)	(5.806)	47	—	—	—	13	(3.672)	(4.133)	(4.455)	357
Native American	—	—	—		—	—	—		28.67	39.98	31.35	
(s.e.)	—	—	—	20	—	—	—	24	(8.098)	(7.348)	(7.006)	57
Age												
20 years or under	30.30	36.56	33.14		33.95	34.79	31.25		29.53	43.11	27.36	
(s.e.)	(2.674)	(3.443)	(4.219)	1,110	(4.493)	(3.888)	(3.829)	1,132	(1.973)	(1.679)	(2.136)	1,544
21–23 years	37.84	38.73	23.43		33.05	38.13	28.82		27.20	47.48	25.32	
(s.e.)	(2.394)	(2.328)	(2.702)	616	(3.854)	(4.078)	(3.258)	679	(2.333)	(2.423)	(2.263)	755
24–29 years	33.52	35.01	31.47		22.41	49.51	28.08		22.51	49.36	28.14	
(s.e.)	(3.148)	(3.209)	(3.650)	357	(3.913)	(4.561)	(3.407)	490	(1.775)	(2.067)	(2.210)	1,000
30 years or over	31.98	27.84	40.18		26.34	40.58	33.08		23.05	44.97	31.98	
(s.e.)	(3.152)	(3.006)	(3.921)	576	(3.809)	(4.704)	(3.381)	776	(1.564)	(2.294)	(2.998)	1,956

Table 66—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected student characteristics: 1989–90[1]—Continued

Student characteristics	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Dependency status												
Dependent	33.27	36.76	29.97		34.00	35.72	30.28		29.40	43.11	27.49	
(s.e.)	(2.293)	(2.852)	(3.606)	1,545	(3.783)	(3.576)	(3.065)	1,648	(1.893)	(1.642)	(1.995)	1,797
Independent	32.27	31.92	35.80		25.43	43.49	31.08		23.26	47.17	29.56	
(s.e.)	(2.315)	(2.682)	(3.136)	1,137	(3.506)	(4.103)	(2.733)	1,493	(1.412)	(1.877)	(2.428)	3,491
Working for pay												
Fall	34.32	33.94	31.74		32.59	36.43	30.98		26.14	44.40	29.45	
(s.e.)	(2.995)	(3.883)	(4.387)	254	(4.318)	(4.911)	(4.298)	240	(3.590)	(3.855)	(3.936)	221
Spring	38.63	34.60	26.77		32.97	35.60	31.43		24.63	48.02	27.35	
(s.e.)	(6.128)	(7.271)	(6.772)	82	(7.459)	(7.813)	(6.548)	79	(3.678)	(4.948)	(5.086)	139
Both	30.96	34.55	34.49		27.16	40.79	32.05		24.90	45.89	29.21	
(s.e.)	(2.149)	(2.598)	(3.009)	1,608	(3.207)	(3.647)	(2.704)	1,838	(1.512)	(1.690)	(2.234)	3,465
Neither	37.12	34.93	27.95		33.54	36.74	29.72		27.14	42.90	29.96	
(s.e.)	(2.877)	(3.721)	(3.555)	395	(4.738)	(4.550)	(3.298)	439	(1.823)	(2.019)	(2.427)	1,014

First row, first column reads: Of all nonbaccalaureate students enrolled in public 4-year postsecondary institutions in 1989–90, 32.82 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 67—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected student characteristics: 1989-90[1]

	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
Student characteristics	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns
Total[4]	8.28	89.51	2.21		12.28	85.75	1.97		24.04	65.30	10.66	
(s.e.)	(1.766)	(1.965)	(0.714)	947	(1.705)	(1.715)	(0.426)	7,070	(4.174)	(4.563)	(2.277)	2,055
Sex												
Male	8.66	89.43	1.91		11.89	85.75	2.35		25.21	64.48	10.31	
(s.e.)	(2.992)	(2.621)	(0.953)	387	(2.820)	(2.882)	(0.817)	2,179	(4.876)	(5.404)	(2.319)	744
Female	7.71	89.60	2.70		14.92	83.49	1.60		24.33	65.68	9.99	
(s.e.)	(1.875)	(2.340)	(0.903)	531	(1.857)	(1.891)	(0.559)	4,040	(4.370)	(4.586)	(2.169)	1,230
Race-ethnicity												
White, non-Hispanic	9.03	88.95	2.02		14.35	83.75	1.90		28.93	59.08	11.99	
(s.e.)	(2.028)	(2.185)	(0.817)	780	(1.931)	(1.954)	(0.546)	4,047	(4.912)	(4.876)	(2.568)	1,484
Black, non-Hispanic	5.96	91.07	2.97		7.77	90.63	1.60		10.94	80.08	8.98	
(s.e.)	(2.274)	(3.049)	(1.763)	109	(1.541)	(1.637)	(0.558)	1,680	(3.563)	(5.816)	(4.332)	236
Hispanic	4.53	95.11	0.37		10.97	85.95	3.08		11.17	82.25	6.58	
(s.e.)	(4.737)	(4.795)	(0.398)	40	(2.994)	(2.954)	(0.886)	1,062	(4.746)	(6.711)	(2.630)	265
Asian	—	—	—		15.45	83.42	1.14		36.43	54.29	9.28	
(s.e.)	—	—	—	11	(4.729)	(4.706)	(0.790)	208	(11.814)	(11.199)	(4.775)	55
Native American	—	—	—		14.32	85.68	0.00		—	—	—	
(s.e.)	—	—	—	7	(6.218)	(6.218)	(0.000)	73	—	—	—	15
Age												
20 years or under	6.07	91.16	2.78		13.25	86.02	0.73		30.07	58.23	11.69	
(s.e.)	(1.674)	(1.968)	(1.475)	204	(1.835)	(1.849)	(0.307)	1,945	(4.744)	(4.322)	(2.413)	846
21-23 years	9.04	87.00	3.95		14.47	82.98	2.54		26.79	59.83	13.38	
(s.e.)	(5.968)	(7.291)	(2.186)	107	(2.501)	(2.574)	(0.814)	1,108	(6.584)	(6.020)	(3.372)	335
24-29 years	15.62	83.54	0.84		13.90	84.71	1.40		19.81	74.70	5.49	
(s.e.)	(3.860)	(3.815)	(0.595)	190	(2.721)	(2.711)	(0.428)	1,450	(5.328)	(5.728)	(1.441)	335
30 years or over	7.23	90.62	2.15		12.27	84.26	3.47		20.25	69.28	10.48	
(s.e.)	(2.008)	(2.581)	(1.038)	426	(2.202)	(2.259)	(1.149)	1,762	(4.671)	(5.499)	(2.752)	481

Table 67—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected student characteristics: 1989-90—Continued[1]

	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
Student characteristics	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns
Dependency status												
Dependent	8.23	88.85	2.92		13.90	84.72	1.38		29.95	57.82	12.23	
(s.e.)	(3.370)	(3.295)	(1.454)	198	(1.994)	(2.063)	(0.551)	1,929	(4.727)	(4.404)	(2.462)	976
Independent	8.41	89.60	1.99		11.80	86.11	2.09		19.97	70.29	9.74	
(s.e.)	(1.974)	(2.343)	(0.709)	742	(1.874)	(1.878)	(0.502)	5,103	(4.231)	(4.969)	(2.491)	1,071
Working for pay												
Fall	12.83	86.75	0.42		9.11	89.81	1.08		34.03	56.57	9.40	
(s.e.)	(6.724)	(6.763)	(0.438)	41	(2.404)	(2.509)	(0.792)	340	(6.492)	(6.833)	(3.135)	167
Spring	6.66	93.34	0.00		16.12	82.72	1.16		33.56	59.53	6.91	
(s.e.)	(3.921)	(3.921)	(0.000)	54	(3.804)	(3.830)	(0.723)	326	(9.530)	(11.843)	(4.024)	72
Both	8.52	89.25	2.23		15.19	82.79	2.02		23.54	65.92	10.54	
(s.e.)	(2.454)	(2.302)	(0.896)	409	(2.300)	(2.299)	(0.708)	2,409	(4.841)	(4.961)	(2.334)	931
Not working for pay	7.53	89.55	2.93		11.04	87.26	1.70		21.96	66.22	11.82	
(s.e.)	(3.624)	(3.868)	(1.312)	285	(2.235)	(2.267)	(0.612)	1,449	(4.604)	(5.518)	(2.880)	396

First row, first column reads: Of all nonbaccalaureate students enrolled in public vocational-technical institutes in 1989-90, 8.28 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] While students enrolled in these institutions are typically considered to be vocational, some declared they were enrolled in academic programs such as law, education, and journalism/communications.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[4] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 68—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989–90[1]

	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
Special populations characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Total[3]	32.82	34.69	32.49		29.63	39.44	30.92		25.38	45.75	28.87	
(s.e.)	(1.904)	(2.438)	(2.935)	2,688	(3.175)	(3.282)	(2.423)	3,177	(1.386)	(1.549)	(2.042)	5,300
Financial aid status[4]												
Aided	32.24	42.86	24.90		31.07	41.73	27.20		24.09	52.92	23.00	
(s.e.)	(1.993)	(2.829)	(2.710)	1,165	(3.645)	(3.498)	(2.772)	1,960	(1.811)	(2.129)	(2.541)	1,848
Not aided	33.20	29.51	37.29		27.77	36.48	35.75		25.88	43.01	31.11	
(s.e.)	(2.311)	(2.318)	(3.229)	1,523	(3.712)	(3.820)	(3.152)	1,217	(1.452)	(1.573)	(2.010)	3,452
Family background,[5] dependent students												
Lowest quartile	34.66	35.45	29.89		37.14	35.05	27.81		27.68	47.20	25.13	
(s.e.)	(3.208)	(3.214)	(3.914)	329	(5.884)	(3.779)	(4.368)	434	(2.836)	(2.606)	(3.121)	483
Second quartile	29.10	42.95	27.95		30.87	41.93	27.19		29.14	48.40	22.46	
(s.e.)	(2.537)	(3.963)	(4.437)	391	(3.769)	(4.597)	(3.648)	380	(2.646)	(2.580)	(2.553)	534
Third quartile	37.11	34.81	28.09		28.12	36.41	35.47		30.16	39.33	30.51	
(s.e.)	(3.105)	(3.659)	(3.684)	406	(4.136)	(4.633)	(4.558)	365	(2.564)	(2.460)	(2.581)	479
Highest quartile	32.29	34.23	33.48		38.26	30.77	30.97		31.12	34.26	34.62	
(s.e.)	(3.378)	(3.170)	(4.575)	419	(5.821)	(4.707)	(3.736)	469	(3.658)	(3.219)	(3.743)	301
Family background,[5] independent students												
Lowest quartile	27.02	36.92	36.05		24.48	46.55	28.97		22.80	49.00	28.20	
(s.e.)	(3.978)	(4.744)	(5.471)	166	(5.730)	(5.909)	(3.975)	211	(2.211)	(2.774)	(2.584)	707
Second quartile	31.19	32.89	35.92		23.88	44.66	31.46		22.88	50.05	27.07	
(s.e.)	(4.096)	(4.272)	(4.740)	209	(5.078)	(5.487)	(3.987)	284	(2.077)	(2.712)	(3.259)	663
Third quartile	38.57	27.89	33.54		23.45	41.92	34.63		26.11	44.62	29.28	
(s.e.)	(3.982)	(3.940)	(4.723)	198	(3.615)	(4.482)	(4.357)	211	(2.308)	(2.848)	(3.090)	543
Highest quartile	33.04	30.52	36.44		21.47	43.08	35.45		26.04	43.30	30.66	
(s.e.)	(3.912)	(3.988)	(4.296)	229	(3.286)	(4.616)	(4.219)	279	(2.415)	(2.877)	(3.174)	485

Table 68—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989–90[1]—Continued

	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
Special populations characteristics	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Postsecondary GPA												
3.5 or over	33.40	27.77	38.83		31.77	34.28	33.95		27.42	43.10	29.49	
(s.e.)	(2.917)	(3.070)	(4.051)	450	(4.466)	(4.085)	(3.655)	734	(1.845)	(2.074)	(2.351)	1,107
2.6–3.49	35.83	37.43	26.74		28.80	44.74	26.45		27.69	47.07	25.24	
(s.e.)	(2.519)	(2.434)	(3.028)	758	(3.946)	(4.387)	(2.837)	1,041	(1.700)	(1.950)	(2.061)	1,316
1.6–2.59	31.90	38.36	29.74		28.25	40.89	30.86		25.22	50.58	24.19	
(s.e.)	(2.571)	(3.499)	(4.023)	836	(3.453)	(3.661)	(2.985)	719	(2.079)	(2.181)	(2.050)	1,181
Under 1.6	27.73	31.18	41.09		16.18	43.52	40.30		23.19	44.87	31.95	
(s.e.)	(3.940)	(5.049)	(4.890)	244	(3.646)	(5.084)	(5.486)	151	(2.398)	(2.462)	(2.832)	572
Disability status												
Disabled	37.05	31.47	31.48		33.43	33.48	33.09		24.11	43.53	32.37	
(s.e.)	(4.504)	(4.234)	(5.179)	144	(6.406)	(6.351)	(5.791)	149	(2.346)	(3.031)	(3.408)	446
Physically impaired	43.32	31.11	25.57		28.03	39.62	32.36		25.60	42.28	32.13	
(s.e.)	(5.025)	(4.788)	(4.707)	99	(5.921)	(6.717)	(5.906)	105	(2.802)	(3.301)	(3.585)	304
Learning disabled	—	—	—		—	—	—		13.98	52.73	33.29	
(s.e.)	—	—	—	22	—	—	—	22	(4.439)	(7.126)	(6.840)	69
Multiple disabilities	—	—	—		—	—	—		28.17	39.39	32.44	
(s.e.)	—	—	—	23	—	—	—	22	(5.986)	(5.689)	(6.694)	73
Not disabled	33.22	35.53	31.25		29.32	40.25	30.43		25.38	46.35	28.27	
(s.e.)	(2.232)	(2.756)	(2.927)	1,609	(3.351)	(3.570)	(2.693)	1,736	(1.459)	(1.595)	(2.104)	3,010
Missing information	31.51	33.71	3.478		29.57	39.12	31.31		25.69	45.26	29.05	
(s.e.)	(2.266)	(2.658)	(3.412)	935	(3.769)	(3.337)	(2.660)	1,292	(1.864)	(1.858)	(2.356)	1,844

Table 68—Percentage of nonbaccalaureate students attending public 4-year; private, nonprofit 4-year; and public 2- to 3-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989-90[1]—Continued

Special populations characteristics	Public 4-year				Private, nonprofit 4-year				Public 2- to 3-year			
	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns	Academic[2]	Vocational[2]	Other[2]	Unweighted Ns
Marital status												
Not married, no dependents	33.27	36.04	30.69		30.97	38.96	30.07		28.19	43.30	28.51	
(s.e.)	(2.180)	(2.754)	(3.310)	1,680	(3.514)	(3.877)	(2.891)	1,755	(1.641)	(1.644)	(1.983)	2,603
Not married, with dependents	21.87	40.45	37.69		26.70	47.76	25.54		23.05	50.17	26.78	
(s.e.)	(4.345)	(5.552)	(5.914)	99	(6.965)	(8.528)	(5.657)	109	(2.543)	(3.464)	(3.611)	370
Married, no dependents	29.27	32.73	38.00		24.48	37.97	37.56		20.73	49.06	30.20	
(s.e.)	(3.477)	(3.804)	(4.693)	233	(3.589)	(4.003)	(3.682)	292	(1.656)	(2.453)	(2.614)	658
Married, with dependents	35.17	26.80	38.03		24.35	40.54	35.11		23.06	46.77	30.16	
(s.e.)	(3.307)	(4.041)	(4.447)	300	(4.266)	(4.512)	(3.887)	387	(1.918)	(2.281)	(2.964)	1,073

First row, first column reads: Of all nonbaccalaureate students enrolled in public 4-year postsecondary institutions in 1989-90, 32.82 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[3] Included in the total are students who may be missing data on particular row variables.

[4] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[5] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 69—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989-90[1]

	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
Special populations characteristics	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns
Total[4]	8.28	89.51	2.21		12.28	85.75	1.97		24.04	65.30	10.66	
(s.e.)	(1.766)	(1.965)	(0.714)	947	(1.705)	(1.715)	(0.426)	7,070	(4.174)	(4.563)	(2.277)	2,055
Financial aid status[5]												
Aided	8.90	89.39	1.71		11.54	86.72	1.74		21.49	68.99	9.52	
(s.e.)	(2.496)	(2.773)	(0.533)	512	(1.656)	(1.664)	(0.335)	6,002	(3.915)	(4.674)	(2.701)	1,337
Not aided	7.89	89.59	2.51		15.38	81.71	2.92		27.75	59.92	12.33	
(s.e.)	(2.024)	(2.382)	(1.014)	435	(3.542)	(3.548)	(1.094)	1,068	(5.495)	(5.734)	(2.760)	718
Family background,[6] dependent students												
Lowest quartile	13.50	83.17	3.33		11.75	86.84	1.41		24.98	64.95	10.07	
(s.e.)	(4.716)	(4.806)	(2.466)	108	(1.916)	(2.024)	(0.571)	1,126	(4.661)	(5.366)	(3.706)	328
Second quartile	3.40	93.60	3.00		14.37	85.25	0.38		24.96	62.52	12.52	
(s.e.)	(2.266)	(2.670)	(2.010)	45	(2.890)	(2.900)	(0.277)	464	(4.809)	(5.375)	(3.274)	278
Third quartile	4.30	92.91	2.80		18.01	80.78	1.21		32.02	51.61	16.37	
(s.e.)	(2.994)	(4.181)	(2.929)	30	(3.643)	(3.723)	(0.980)	242	(7.274)	(6.578)	(3.834)	209
Highest quartile	—	—	—		24.23	69.83	5.94		46.09	43.07	10.84	
(s.e.)	—	—	—	15	(7.516)	(7.712)	(3.784)	96	(7.151)	(6.332)	(4.450)	161
Family background,[6] independent students												
Lowest quartile	7.27	91.71	1.02		9.70	89.14	1.16		15.58	78.83	5.59	
(s.e.)	(2.753)	(3.085)	(0.711)	224	(1.814)	(1.866)	(0.592)	952	(4.139)	(5.393)	(2.398)	176
Second quartile	9.86	88.16	1.97		12.21	86.23	1.57		17.80	74.79	7.41	
(s.e.)	(5.968)	(6.102)	(1.432)	109	(2.483)	(2.486)	(0.570)	717	(4.370)	(5.395)	(2.958)	182
Third quartile	5.97	90.81	3.22		14.96	81.99	3.05		21.70	70.29	8.01	
(s.e.)	(3.694)	(3.860)	(1.690)	70	(2.907)	(3.034)	(1.367)	459	(6.521)	(7.370)	(3.149)	145
Highest quartile	17.54	81.94	0.52		21.78	75.92	2.30		27.10	65.53	7.37	
(s.e.)	(5.543)	(5.496)	(0.552)	54	(4.849)	(4.813)	(1.073)	277	(8.086)	(8.894)	(4.044)	109

Table 69—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989-90[1]—Continued

	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
Special populations characteristics	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	*Other*[3]	Unweighted *Ns*
Postsecondary GPA												
3.5 or greater	5.41	92.15	2.45		12.41	85.90	1.69		24.35	61.02	14.63	
(s.e)	(3.426)	(4.325)	(2.386)	86	(2.157)	(2.158)	(0.487)	1,738	(5.509)	(6.530)	(5.037)	277
2.6-3.49	1.54	97.18	1.28		14.33	83.96	1.71		28.11	63.67	8.23	
(s.e,)	(1.072)	(1.718)	(1.293)	78	(2.472)	(2.542)	(0.882)	1,275	(6.210)	(5.969)	(2.567)	451
1.6-2.59	—	—	—		13.73	84.79	1.48		30.81	60.16	9.02	
(s.e.)	—	—	—	28	(2.589)	(2.631)	(0.615)	7.09	(5.669)	(5.577)	(2.070)	388
Under 1.6	—	—	—		8.16	88.97	2.87		20.94	73.94	5.12	
(s.e.)	—	—	—	28	(2.418)	(2.472)	(1.263)	288	(5.666)	(6.074)	(2.095)	109
Hours of remedial instruction												
None	7.67	89.83	2.50		12.34	85.55	2.10		23.73	64.82	11.45	
(s.e.)	(1.600)	(1.942)	(0.889)	608	(1.866)	(1.881)	(0.459)	4,902	(4.103)	(4.656)	(2.500)	1,430
1-100	15.17	82.95	1.88		16.53	81.70	1.78		30.01	68.90	1.09	
(s.e.)	(9.613)	(9.865)	(1.958)	48	(4.159)	(4.097)	(1.031)	163	(9.668)	(9.618)	(1.062)	62
Greater than 100	—	—	—		17.90	82.10	0.00		—	—	—	
(s.e.)	—	—	—	8	(6.648)	(6.648)	(0.000)	48	—	—	—	16
Disability status												
Disabled	9.37	85.94	4.69		10.09	87.23	2.69		35.55	52.81	11.64	
(s.e.)	(4.258)	(4.487)	(2.422)	90	(1.952)	(2.255)	(1.233)	486	(5.877)	(6.447)	(4.488)	130
Physically impaired	5.57	88.41	6.02		9.01	88.45	2.54		33.38	56.25	10.38	
(s.e.)	(3.786)	(4.529)	(3.522)	61	(2.051)	(2.516)	(1.556)	333	(7.395)	(8.386)	(4.555)	85
Learning disabled	—	—	—		18.42	77.49	4.09		—	—	—	
(s.e.)	—	—	—	8	(7.212)	(7.932)	(4.014)	52	—	—	—	21
Multiple disabilities	—	—	—		9.60	87.90	2.50		—	—	—	
(s.e.)	—	—	—	21	(4.505)	(4.827)	(2.193)	101	—	—	—	24
Not disabled	5.24	93.53	1.24		13.92	84.38	1.69		25.09	65.52	9.39	
(s.e.)	(1.825)	(1.786)	(0.684)	492	(1.954)	(1.961)	(0.600)	2,689	(4.916)	(4.877)	(2.311)	976
Missing information	11.79	85.42	2.78		11.52	86.43	2.06		21.66	66.66	11.68	
(s.e.)	(2.551)	(2.829)	(1.183)	365	(1.958)	(1.966)	(0.398)	3,895	(4.201)	(5.109)	(2.749)	949

Table 69—Percentage of nonbaccalaureate students attending public vocational-technical; private proprietary; and private, nonprofit less-than-4-year postsecondary institutions enrolled in academic and vocational programs by type of institution, by selected special populations characteristics: 1989-90[1]—Continued

Special populations characteristics	Public vocational-technical[2]				Private proprietary[2]				Private, nonprofit less-than-4-year			
	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns	Academic[3]	Vocational[3]	Other[3]	Unweighted Ns
Marital status												
Not married,												
no dependents	5.97	90.77	3.26		15.40	83.04	1.56		26.52	62.07	11.40	
(s.e.)	(1.555)	(1.799)	(1.376)	290	(2.382)	(2.391)	(0.568)	2,356	(4.698)	(4.661)	(2.538)	1,081
Not married,												
with dependents	10.90	86.43	2.67		9.74	89.48	0.78		14.05	81.41	4.54	
(s.e.)	(5.724)	(5.163)	(2.261)	95	(1.807)	(1.812)	(0.368)	743	(5.309)	(6.061)	(2.935)	106
Married,												
no dependents	11.35	85.93	2.72		12.77	83.40	3.82		23.88	65.00	11.12	
(s.e.)	(6.511)	(6.307)	(1.750)	139	(2.265)	(2.613)	(1.692)	524	(7.405)	(7.867)	(4.254)	148
Married,												
with dependents	5.10	94.64	0.26		12.28	86.45	1.27		20.65	69.47	9.88	
(s.e.)	(1.666)	(1.660)	(0.225)	246	(2.128)	(2.116)	(0.445)	871	(5.777)	(7.083)	(3.525)	218

First row, first column reads: Of all nonbaccalaureate students enrolled in public vocational-technical institutes in 1989-90, 8.28 percent reported majoring in academic programs.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] While students enrolled in these institutions are typically considered to be vocational, some declared they were enrolled in academic programs such as law, education, and journalism/communications.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

[4] Included in the total are students who may be missing data on particular row variables.

[5] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional aid categories include both need-based and merit-based aid.

[6] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 70—Percentage of nonbaccalaureate students attending postsecondary institutions majoring in vocational fields by program area, by postsecondary institution type: 1989–90[1]

Institution type	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	51.21	0.40	17.38	1.09	10.62	2.18	3.85	5.49	2.17	0.10	7.92	
(s.e.)	(1.227)	(0.072)	(0.684)	(0.180)	(0.583)	(0.198)	(0.334)	(0.354)	(0.258)	(0.034)	(0.622)	21,237
Institution type												
Public 4-year	34.69	1.12	10.40	1.62	8.11	2.80	1.74	6.34	0.79	0.06	1.72	
(s.e.)	(2.438)	(0.382)	(1.018)	(0.362)	(0.853)	(0.560)	(0.300)	(0.707)	(0.205)	(0.046)	(0.318)	2,688
Private, nonprofit 4-year	39.44	0.32	17.25	0.97	8.05	2.66	3.08	5.84	0.60	0.04	0.64	
(s.e.)	(3.282)	(0.162)	(1.732)	(0.262)	(1.345)	(0.688)	(0.634)	(2.415)	(0.193)	(0.039)	(0.277)	3,177
Public 2- to 3-year	45.75	0.33	16.81	0.62	10.79	1.72	3.18	5.18	2.52	0.07	4.53	
(s.e.)	(1.549)	(0.080)	(0.754)	(0.136)	(0.726)	(0.208)	(0.316)	(0.434)	(0.294)	(0.033)	(0.515)	5,300
Public vocational-technical[3]	89.51	0.12	17.89	0.79	15.91	4.92	5.61	5.13	7.66	0.05	31.44	
(s.e.)	(1.965)	(0.126)	(2.835)	(0.486)	(3.854)	(2.136)	(1.920)	(1.044)	(5.728)	(0.054)	(4.094)	947
Private proprietary[3]	85.75	0.01	24.91	3.21	10.10	2.50	9.01	6.73	1.24	0.31	27.73	
(s.e.)	([illegible].715)	(0.011)	(2.952)	(1.066)	(2.092)	(0.673)	(1.785)	(1.119)	(0.491)	(0.185)	(3.376)	7,070
Private, nonprofit less-than-4-year	65.30	1.72	20.34	0.71	18.71	6.68	2.63	3.49	1.39	0.00	9.62	
(s.e.)	(4.563)	(0.764)	(4.628)	(0.223)	(3.625)	(2.303)	(0.607)	(0.882)	(0.688)	(0.000)	(2.599)	2,055

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989–90, 51.21 percent reported majoring in a vocational field.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] While students enrolled in these institutions are typically considered to be vocational, some declared they were enrolled in academic programs such as law, education, and journalism/communications.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 71—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected educational characteristics: 1989–90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	34.69	1.12	10.40	1.62	8.11	2.80	1.74	6.34	0.79	0.06	1.72	
(s.e.)	(2.438)	(0.382)	(1.018)	(0.362)	(0.853)	(0.560)	(0.300)	(0.707)	(0.205)	(0.046)	(0.318)	2,688
Attendance status[3]												
Full-time	42.12	1.71	12.94	1.98	9.26	2.79	1.98	8.58	0.80	0.11	1.97	
(s.e.)	(2.747)	(0.575)	(1.323)	(0.467)	(1.027)	(0.475)	(0.377)	(0.974)	(0.277)	(0.081)	(0.398)	1,628
Part-time	23.73	0.39	6.27	1.07	6.27	2.36	1.48	3.71	0.72	0.00	1.46	
(s.e.)	(2.638)	(0.216)	(1.057)	(0.460)	(1.263)	(0.854)	(0.445)	(0.659)	(0.284)	(0.000)	(0.472)	911
Term enrollment												
Fall	27.05	0.00	8.83	0.37	5.45	2.84	2.20	5.05	1.68	0.00	0.64	
(s.e.)	(3.936)	(0.000)	(1.536)	(0.362)	(1.354)	(1.229)	(1.096)	(1.428)	(0.898)	(0.000)	(0.445)	287
Spring	20.93	0.00	6.11	2.15	4.02	3.85	0.99	2.60	0.28	0.00	0.94	
(s.e.)	(4.083)	(0.000)	(1.723)	(1.595)	(1.804)	(1.839)	(0.684)	(1.075)	(0.277)	(0.000)	(0.675)	187
Both	38.17	1.42	11.55	1.58	8.98	2.65	1.73	7.57	0.63	0.10	1.97	
(s.e.)	(2.552)	(0.483)	(1.146)	(0.371)	(1.074)	(0.513)	(0.331)	(0.850)	(0.211)	(0.071)	(0.383)	1,762
Summers only	21.56	0.00	5.28	1.82	6.81	2.20	0.78	1.10	1.65	0.00	1.92	
(s.e.)	(6.701)	(0.000)	(2.938)	(1.776)	(3.245)	(2.121)	(0.790)	(1.119)	(1.646)	(0.000)	(1.869)	63
Award type being pursued												
Certificate	45.98	1.70	14.00	3.13	9.46	4.46	3.09	6.90	1.11	0.10	2.02	
(s.e.)	(3.298)	(0.671)	(1.739)	(0.777)	(1.587)	(0.777)	(0.559)	(1.194)	(0.469)	(0.102)	(0.577)	764
Associate degree	56.92	0.26	15.04	1.41	17.64	5.93	1.34	7.93	1.85	0.00	5.53	
(s.e.)	(4.235)	(0.264)	(2.975)	(0.760)	(3.738)	(2.978)	(0.816)	(2.161)	(0.879)	(0.000)	(1.482)	369
Other[4]	24.30	1.01	7.61	0.91	5.38	1.30	1.16	5.72	0.40	0.06	0.74	
(s.e.)	(3.187)	(0.537)	(1.076)	(0.407)	(0.958)	(0.309)	(0.355)	(0.952)	(0.173)	(0.061)	(0.224)	1,555

First row, first column reads: Of all nonbaccalaureate students attending public 4-year postsecondary institutions in 1989–90, 34.69 percent reported majoring in a vocational field.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 72—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989–90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	34.69	1.12	10.40	1.62	8.11	2.80	1.74	6.34	0.79	0.06	1.72	
(s.e.)	(2.438)	(0.382)	(1.018)	(0.362)	(0.853)	(0.560)	(0.300)	(0.707)	(0.205)	(0.046)	(0.318)	2,688
Sex												
Male	40.56	1.74	12.13	1.67	4.51	1.60	3.04	12.00	0.86	0.15	2.86	
(s.e.)	(2.900)	(0.613)	(1.321)	(0.452)	(0.705)	(0.369)	(0.557)	(1.222)	(0.287)	(0.103)	(0.676)	1,188
Female	30.28	0.64	9.08	1.48	11.36	3.73	0.73	1.81	0.69	0.00	0.76	
(s.e.)	(0.230)	(2.340)	(1.229)	(0.360)	(1.426)	(0.836)	(0.229)	(0.407)	(0.237)	(0.000)	(0.230)	1,449
Race–ethnicity												
White, non-Hispanic	33.88	1.18	10.08	1.68	7.97	2.89	1.49	5.83	0.88	0.08	1.80	
(s.e.)	(2.728)	(0.420)	(1.146)	(0.401)	(0.906)	(0.520)	(0.317)	(0.783)	(0.247)	(0.057)	(0.365)	2,168
Black, non-Hispanic	38.78	0.00	11.78	1.84	8.64	3.59	3.05	8.19	0.37	0.00	1.31	
(s.e.)	(4.364)	(0.000)	(2.383)	(0.882)	(2.021)	(2.086)	(1.072)	(2.156)	(0.370)	(0.000)	(0.748)	222
Hispanic	37.80	1.25	12.46	1.92	10.24	1.76	1.00	7.37	0.73	0.00	1.08	
(s.e.)	(5.142)	(0.837)	(3.260)	(1.354)	(2.506)	(1.339)	(0.717)	(2.727)	(0.679)	(0.000)	(0.778)	157
Asian	37.69	1.95	10.96	0.00	6.86	0.73	4.48	11.25	0.00	0.00	1.45	
(s.e.)	(5.271)	(1.276)	(2.982)	(0.000)	(2.239)	(0.755)	(2.187)	(2.672)	(0.000)	(0.000)	(0.869)	121
Native American	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	20
Age												
20 years or under	36.56	1.08	11.97	1.47	6.74	3.01	1.87	7.84	0.72	0.00	1.85	
(s.e.)	(3.443)	(0.358)	(1.643)	(0.405)	(1.042)	(0.643)	(0.457)	(1.139)	(0.253)	(0.000)	(0.415)	1,110
21-23 years	38.73	2.00	11.03	2.69	9.10	3.58	2.05	5.64	1.19	0.00	1.45	
(s.e.)	(2.328)	(0.747)	(1.343)	(0.778)	(1.375)	(0.817)	(0.561)	(1.088)	(0.516)	(0.000)	(0.490)	616
24-29 years	35.01	1.20	8.04	1.60	6.80	3.90	1.78	8.29	1.00	0.27	2.12	
(s.e.)	(3.209)	(0.561)	(1.449)	(0.723)	(1.309)	(1.370)	(0.741)	(1.491)	(0.515)	(0.271)	(0.696)	357
30 years or over	27.84	0.23	8.48	0.79	10.74	0.98	1.19	3.31	0.38	0.14	1.60	
(s.e.)	(3.006)	(0.224)	(1.535)	(0.396)	(1.924)	(0.474)	(0.488)	(0.803)	(0.224)	(0.139)	(0.587)	576

Table 72—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989–90--Continued[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Dependency status												
Dependent	36.76	1.56	11.38	1.84	7.21	3.16	1.87	7.22	0.83	0.00	1.68	
(s.e.)	(2.852)	(0.499)	(1.346)	(0.452)	(0.904)	(0.528)	(0.383)	(0.957)	(0.265)	(0.000)	(0.367)	1,545
Independent	31.92	0.49	9.06	1.30	9.44	2.30	1.55	5.13	0.72	0.16	1.78	
(s.e.)	(2.682)	(0.244)	(1.155)	(0.395)	(1.320)	(0.761)	(0.363)	(0.827)	(0.269)	(0.111)	(0.444)	1,137
Working for pay												
Fall	33.94	2.25	8.33	1.69	7.20	3.35	1.42	7.44	0.32	0.00	1.93	
(s.e.)	(3.883)	(0.953)	(1.987)	(0.972)	(1.457)	(1.478)	(0.696)	(2.074)	(0.322)	(0.000)	(0.831)	254
Spring	34.60	0.00	5.82	2.41	7.78	4.50	1.28	12.80	0.00	0.00	0.00	
(s.e.)	(7.271)	(0.000)	(3.230)	(1.739)	(2.930)	(2.028)	(1.218)	(3.654)	(0.000)	(0.000)	(0.000)	82
Both	34.55	0.67	11.24	1.44	8.08	2.76	1.59	6.16	0.63	0.11	1.89	
(s.e.)	(2.598)	(0.276)	(1.109)	(0.382)	(1.024)	(0.663)	(0.345)	(0.738)	(0.205)	(0.076)	(0.481)	1,608
Neither	34.93	2.32	9.46	1.52	7.82	2.29	2.52	6.32	1.67	0.00	1.00	
(s.e.)	(3.721)	(0.864)	(1.587)	(0.616)	(1.602)	(1.041)	(0.820)	(1.243)	(0.793)	(0.000)	(0.483)	395

First row, first column reads: Of all nonbaccalaureate students attending public 4-year postsecondary institutions in 1989-90, 34.69 percent reported majoring in a vocational field.

--Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 73—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989-90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	34.69	1.12	10.40	1.62	8.11	2.80	1.74	6.34	0.79	0.06	1.72	
(s.e.)	(2.438)	(0.382)	(1.018)	(0.362)	(0.853)	(0.560)	(0.300)	(0.707)	(0.205)	(0.046)	(0.318)	2,688
Financial aid status[3]												
Aided	42.86	1.42	13.55	1.66	10.15	3.05	1.84	8.52	0.95	0.07	1.65	
(s.e.)	(2.829)	(0.492)	(1.409)	(0.430)	(1.158)	(0.746)	(0.377)	(1.133)	(0.347)	(0.075)	(0.368)	1,165
Not aided	29.51	0.92	8.40	1.59	6.82	2.63	1.67	4.96	0.68	0.06	1.76	
(s.e.)	(2.318)	(0.341)	(1.044)	(0.416)	(0.935)	(0.636)	(0.382)	(0.643)	(0.237)	(0.058)	(0.472)	1,523
Family background,[4] dependent students												
Lowest quartile	35.45	1.54	12.28	2.57	6.54	1.30	1.97	6.56	1.19	0.00	1.49	
(s.e.)	(3.214)	(0.624)	(1.712)	(0.925)	(1.480)	(0.688)	(0.817)	(1.505)	(0.598)	(0.000)	(0.615)	329
Second quartile	42.95	2.29	13.99	1.25	10.95	3.25	1.92	7.60	0.48	0.00	1.22	
(s.e.)	(3.963)	(0.728)	(2.471)	(0.573)	(1.990)	(1.033)	(0.714)	(1.481)	(0.341)	(0.000)	(0.722)	391
Third quartile	34.81	0.91	11.77	2.27	4.88	3.57	1.77	7.51	0.30	0.00	1.83	
(s.e.)	(3.659)	(0.435)	(1.923)	(0.801)	(1.170)	(1.050)	(0.607)	(1.499)	(0.302)	(0.000)	(0.669)	406
Highest quartile	34.23	1.56	8.16	1.45	6.67	3.99	1.87	7.08	1.36	0.00	2.08	
(s.e.)	(3.170)	(0.878)	(1.372)	(0.585)	(1.287)	(0.879)	(0.741)	(1.378)	(0.696)	(0.000)	(0.757)	419
Family background,[4] independent students												
Lowest quartile	36.92	0.00	10.48	0.00	14.12	1.13	2.51	5.21	0.74	0.00	2.72	
(s.e.)	(4.744)	(0.000)	(2.146)	(0.000)	(3.088)	(0.808)	(1.119)	(1.815)	(0.746)	(0.000)	(1.319)	166
Second quartile	32.89	0.00	8.98	1.47	11.16	2.67	1.30	5.24	0.66	0.00	1.42	
(s.e.)	(4.272)	(0.000)	(2.511)	(0.854)	(2.512)	(1.353)	(0.722)	(1.615)	(0.465)	(0.000)	(0.815)	209
Third quartile	27.89	0.67	10.01	0.41	5.84	2.88	0.79	4.76	1.07	0.00	1.46	
(s.e.)	(3.940)	(0.667)	(2.201)	(0.401)	(2.059)	(1.178)	(0.582)	(1.530)	(0.615)	(0.000)	(0.844)	198
Highest quartile	30.52	1.27	6.97	1.45	7.42	2.67	1.51	7.48	0.00	0.42	1.32	
(s.e.)	(3.988)	(0.686)	(1.718)	(0.793)	(1.719)	(0.982)	(0.767)	(1.889)	(0.000)	(0.420)	(0.778)	229

Table 73—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total Un- vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	weighted Ns
Postsecondary GPA												
3.5 or over	27.77	0.84	8.64	1.24	6.66	1.59	1.78	5.84	0.30	0.18	0.71	
(s.e.)	(3.070)	(0.498)	(1.531)	(0.620)	(1.287)	(0.707)	(0.680)	(1.382)	(0.216)	(0.176)	(0.399)	450
2.6–3.49	37.43	1.05	11.83	1.46	8.96	2.06	1.24	7.63	0.79	0.00	2.40	
(s.e.)	(2.434)	(0.545)	(1.341)	(0.479)	(1.137)	(0.805)	(0.373)	(1.051)	(0.363)	(0.000)	(0.559)	758
1.6–2.59	38.36	1.71	12.35	2.28	8.03	3.65	1.28	6.36	1.05	0.12	1.53	
(s.e.)	(3.499)	(0.635)	(1.978)	(0.656)	(1.287)	(0.666)	(0.459)	(0.972)	(0.419)	(0.116)	(0.441)	836
Under 1.6	31.18	1.26	5.32	0.82	10.33	0.36	3.38	7.74	0.00	0.00	1.97	
(s.e.)	(5.049)	(0.734)	(1.914)	(0.774)	(2.736)	(0.351)	(1.205)	(1.712)	(0.000)	(0.000)	(1.550)	244
Disability status												
Disabled	31.47	0.94	10.90	0.00	8.05	1.85	0.00	6.60	0.54	0.56	2.04	
(s.e.)	(4.234)	(0.943)	(3.068)	(0.000)	(2.300)	(1.009)	(0.000)	(2.057)	(0.541)	(0.562)	(1.182)	144
Physically impaired	31.11)	0.00	12.13	0.00	9.42	1.82	0.00	4.18	0.77	0.81	1.97	
(s.e.)	(4.788)	(0.000)	(3.883)	(0.000)	(3.102)	(1.175)	(0.000)	(2.048)	(0.779)	(0.807)	(1.390)	99
Learning disabled	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	22
Multiple disabilities	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	23
Not disabled	35.53	1.12	10.45	1.47	8.39	2.93	1.75	6.98	0.76	0.06	1.62	
(s.e.)	(2.756)	(0.415)	(1.155)	(0.458)	(0.966)	(0.581)	(0.341)	(0.886)	(0.254)	(0.059)	(0.419)	1,609
Missing information	33.71	1.15	10.24	2.10	7.63	2.71	1.97	5.19	0.87	0.00	1.85	
(s.e.)	(2.658)	(0.460)	(1.337)	(0.613)	(1.201)	(0.789)	(0.458)	(0.835)	(0.286)	(0.000)	(0.458)	935

Table 73—Percentage of nonbaccalaureate students attending public 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989-90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married, no dependents	36.04	1.32	11.02	1.82	7.23	3.02	1.71	7.30	0.93	0.00	1.69	
(s.e.)	(2.754)	(0.470)	(1.197)	(0.460)	(0.865)	(0.566)	(0.354)	(0.880)	(0.267)	(0.000)	(0.387)	1,680
Not married, with dependents	40.45	2.31	12.45	2.74	9.05	1.77	4.11	4.05	0.73	0.00	3.24	
(s.e.)	(5.552)	(1.590)	(3.692)	(1.865)	(3.359)	(1.198)	(1.934)	(1.897)	(0.732)	(0.000)	(2.430)	99
Married, no dependents	32.73	0.00	8.19	0.93	9.96	4.01	2.04	5.80	0.00	0.00	1.80	
(s.e.)	(3.804)	(0.000)	(2.056)	(0.658)	(2.072)	(1.624)	(0.815)	(1.628)	(0.000)	(0.000)	(0.879)	233
Married, with dependents	26.80	0.00	8.68	0.00	9.62	1.25	0.92	4.43	0.39	0.57	0.94	
(s.e.)	(4.041)	(0.000)	(1.688)	(0.000)	(2.456)	(0.642)	(0.532)	(1.253)	(0.391)	(0.407)	(0.548)	300

First row, first column reads: Of all nonbaccalaureate students attending public 4-year postsecondary institutions in 1989-90, 34.69 percent reported majoring in a vocational field.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[4] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 74—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected educational characteristics: 1989-90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Total[2]	39.44	0.32	17.25	0.97	8.05	2.66	3.08	5.84	0.60	0.04	0.64	
(s.e.)	(3.282)	(0.162)	(1.732)	(0.262)	(1.345)	(0.688)	(0.634)	(2.415)	(0.193)	(0.039)	(0.277)	3,177
Attendance status[3]												
Full-time	39.24	0.17	15.40	0.93	9.34	4.01	2.57	5.19	0.54	0.07	1.01	
(s.e.)	(3.715)	(0.099)	(1.782)	(0.324)	(1.544)	(1.064)	(0.606)	(2.040)	(0.211)	(0.074)	(0.514)	1,852
Part-time	38.60	0.52	18.96	1.06	7.07	1.12	3.38	5.60	0.62	0.00	0.26	
(s.e.)	(4.471)	(0.311)	(2.710)	(0.349)	(1.820)	(0.458)	(0.944)	(3.239)	(0.249)	(0.000)	(0.153)	1,123
Term enrollment												
Fall	33.95	0.17	17.10	0.60	4.29	2.71	1.87	7.05	0.17	0.00	0.00	
(s.e.)	(4.649)	(0.165)	(2.827)	(0.406)	(1.462)	(0.939)	(1.110)	(3.588)	(0.166)	(0.000)	(0.000)	327
Spring	37.45	1.81	20.08	1.03	5.37	0.82	1.83	4.53	1.98	0.00	0.00	
(s.e.)	(7.965)	(1.324)	(5.637)	(0.813)	(1.822)	(0.827)	(0.895)	(2.522)	(1.082)	(0.000)	(0.000)	168
Both	40.84	0.27	16.52	1.07	9.15	3.30	2.82	6.15	0.69	0.06	0.79	
(s.e.)	(3.465)	(0.151)	(1.718)	(0.329)	(1.572)	(0.886)	(0.622)	(2.653)	(0.222)	(0.064)	(0.336)	2,014
Summer only	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	24
Award type being pursued												
Certificate	42.71	0.19	15.79	0.64	7.83	1.50	2.57	13.21	0.74	0.00	0.22	
(s.e.)	(6.799)	(0.117)	(2.344)	(0.280)	(2.339)	(0.924)	(0.691)	(5.769)	(0.410)	(0.000)	(0.133)	1,151
Associate degree	69.29	1.12	29.91	2.12	17.70	7.02	5.51	2.29	1.73	0.00	1.89	
(s.e.)	(3.507)	(0.783)	(5.696)	(0.939)	(5.760)	(3.161)	(1.379)	(1.002)	(0.709)	(0.000)	(1.346)	482
Other[4]	26.83	0.14	14.11	0.84	4.97	2.08	2.65	1.31	0.11	0.08	0.54	
(s.e.)	(2.792)	(0.103)	(1.672)	(0.369)	(0.877)	(0.492)	(0.873)	(0.423)	(0.113)	(0.082)	(0.336)	1,544

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions in 1989-90, 39.44 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 75—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989-90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	39.44	0.32	17.25	0.97	8.05	2.66	3.08	5.84	0.60	0.04	0.64	
(s.e.)	(3.282)	(0.162)	(1.732)	(0.262)	(1.345)	(0.688)	(0.634)	(2.415)	(0.193)	(0.039)	(0.277)	3,177
Sex												
Male	40.71	0.43	18.18	0.76	3.85	2.35	4.40	9.24	0.51	0.09	0.89	
(s.e.)	(4.724)	(0.342)	(2.210)	(0.309)	(0.725)	(1.004)	(0.964)	(3.623)	(0.279)	(0.094)	(0.400)	1,341
Female	38.43	0.25	16.26	1.20	11.37	3.07	1.92	3.26	0.61	0.00	0.48	
(s.e.)	(3.131)	(0.123)	(2.010)	(0.371)	(1.979)	(0.746)	(0.558)	(1.618)	(0.208)	(0.000)	(0.248)	1,729
Race-ethnicity												
White, non-Hispanic	38.87	0.30	16.92	1.00	7.55	3.04	2.91	5.88	0.62	0.05	0.60	
(s.e.)	(3.512)	(0.181)	(1.908)	(0.289)	(1.421)	(0.778)	(0.733)	(2.550)	(0.212)	(0.049)	(0.270)	2,563
Black, non-Hispanic	48.29	0.00	21.78	1.52	10.60	1.85	2.89	6.92	1.35	0.00	1.37	
(s.e.)	(4.392)	(0.000)	(4.275)	(0.646)	(2.239)	(0.994)	(0.893)	(3.210)	(0.849)	(0.000)	(0.668)	244
Hispanic	37.87	0.92	17.75	0.54	10.48	0.47	4.62	3.08	0.00	0.00	0.00	
(s.e.)	(4.326)	(0.942)	(2.640)	(0.535)	(3.708)	(0.355)	(1.012)	(1.044)	(0.000)	(0.000)	(0.000)	252
Asian	36.98	0.00	11.04	0.00	7.13	1.54	4.87	12.39	0.00	0.00	0.00	
(s.e.)	(6.433)	(0.000)	(3.957)	(0.000)	(2.928)	(1.545)	(2.328)	(5.370)	(0.000)	(0.000)	(0.000)	94
Native American	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	24
Age												
20 years or under	34.79	0.16	14.34	1.20	6.36	4.26	2.21	4.38	0.66	0.00	1.23	
(s.e.)	(3.888)	(0.114)	(1.802)	(0.429)	(1.341)	(1.284)	(0.585)	(1.531)	(0.324)	(0.000)	(0.607)	1,132
21-23 years	38.13	0.16	17.36	1.42	6.92	2.60	1.99	6.94	0.23	0.18	0.33	
(s.e.)	(4.078)	(0.155)	(2.199)	(0.519)	(1.261)	(0.743)	(0.630)	(2.991)	(0.216)	(0.176)	(0.233)	679
24-29 years	49.51	1.26	21.09	0.54	9.08	2.08	4.65	9.01	1.29	0.00	0.51	
(s.e.)	(4.561)	(0.786)	(2.827)	(0.384)	(2.070)	(0.826)	(1.651)	(4.643)	(0.575)	(0.000)	(0.361)	490
30 years or over	40.58	0.12	18.58	0.68	10.88	1.14	3.62	4.80	0.50	0.00	0.27	
(s.e.)	(4.704)	(0.115)	(2.862)	(0.388)	(2.382)	(0.436)	(1.176)	(2.975)	(0.294)	(0.000)	(0.196)	776

Table 75—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989-90[1]—Continued

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Dependency status												
Dependent	35.72	0.18	15.38	1.11	6.27	3.70	2.26	5.35	0.50	0.08	0.89	
(s.e.)	(3.576)	(0.099)	(1.714)	(0.363)	(1.143)	(0.988)	(0.503)	(2.000)	(0.265)	(0.077)	(0.450)	1,648
Independent	43.49	0.47	19.30	0.85	9.93	1.64	3.78	6.41	0.72	0.00	0.38	
(s.e.)	(4.103)	(0.265)	(2.492)	(0.300)	(1.931)	(0.477)	(0.974)	(3.343)	(0.243)	(0.000)	(0.175)	1,493
Working for pay												
Fall	36.43	0.25	14.62	1.12	6.71	3.44	2.93	4.35	1.44	0.00	1.56	
(s.e.)	(4.911)	(0.240)	(2.823)	(0.685)	(1.590)	(1.419)	(1.197)	(1.533)	(0.999)	(0.000)	(1.170)	240
Spring	35.60	0.00	10.65	0.00	11.78	3.85	0.83	6.92	0.00	1.59	0.00	
(s.e.)	(7.813)	(0.000)	(4.750)	(0.000)	(5.331)	(2.342)	(0.790)	(3.176)	(0.000)	(1.595)	(0.000)	79
Both	40.79	0.45	18.16	0.85	7.44	3.01	2.88	6.94	0.64	0.00	0.43	
(s.e.)	(3.647)	(0.268)	(1.870)	(0.309)	(1.460)	(0.798)	(0.740)	(3.181)	(0.215)	(0.000)	(0.222)	1,838
Neither	36.74	0.27	15.52	1.54	10.68	1.78	1.55	3.75	0.80	0.00	0.85	
(s.e.)	(4.550)	(0.182)	(2.846)	(0.743)	(2.525)	(0.720)	(0.845)	(2.254)	(0.451)	(0.000)	(0.493)	439

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions in 1989-90, 39.44 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 76—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	39.44	0.32	17.25	0.97	8.05	2.66	3.08	5.84	0.60	0.04	0.64	
(s.e.)	(3.282)	(0.162)	(1.732)	(0.262)	(1.345)	(0.688)	(0.634)	(2.415)	(0.193)	(0.039)	(0.277)	3,177
Financial aid status[3]												
Aided	41.73	0.38	16.68	0.59	10.19	3.08	3.92	5.73	0.63	0.00	0.54	
(s.e.)	(3.498)	(0.253)	(1.809)	(0.220)	(1.776)	(0.849)	(0.859)	(2.207)	(0.229)	(0.000)	(0.285)	1,960
Not aided	36.48	0.25	17.99	1.46	5.29	2.10	1.99	5.99	0.56	0.09	0.76	
(s.e.)	(3.820)	(0.188)	(2.107)	(0.434)	(1.140)	(0.727)	(0.590)	(2.780)	(0.231)	(0.089)	(0.320)	1,217
Family background,[4] dependent students												
Lowest quartile	35.05	0.28	16.74	0.99	6.45	2.36	3.57	3.82	0.41	0.00	0.44	
(s.e.)	(3.779)	(0.267)	(2.378)	(0.486)	(1.614)	(1.111)	(1.160)	(1.391)	(0.303)	(0.000)	(0.329)	434
Second quartile	41.93	0.15	20.02	0.79	8.75	2.47	2.01	5.87	0.63	0.00	1.25	
(s.e.)	(4.597)	(0.143)	(2.996)	(0.560)	(2.244)	(1.004)	(0.812)	(2.771)	(0.365)	(0.000)	(0.885)	380
Third quartile	36.41	0.32	12.77	0.77	6.56	6.17	2.31	6.03	0.79	0.00	0.69	
(s.e.)	(4.633)	(0.209)	(2.087)	(0.481)	(1.432)	(2.083)	(0.759)	(2.718)	(0.425)	(0.000)	(0.469)	365
Highest quartile	30.77	0.00	12.43	1.74	3.91	3.98	1.26	5.76	0.27	0.26	1.16	
(s.e.)	(4.707)	(0.000)	(2.403)	(0.703)	(1.109)	(1.278)	(0.495)	(2.145)	(0.263)	(0.265)	(0.661)	469
Family background,[4] independent students												
Lowest quartile	46.55	1.42	22.89	0.53	10.86	1.98	4.97	3.91	0.00	0.00	0.00	
(s.e.)	(5.909)	(1.326)	(4.052)	(0.520)	(3.258)	(0.953)	(1.779)	(2.210)	(0.000)	(0.000)	(0.000)	211
Second quartile	44.66	0.73	22.71	0.76	7.68	0.76	2.97	7.54	1.12	0.00	0.40	
(s.e.)	(5.487)	(0.519)	(3.842)	(0.565)	(2.286)	(0.537)	(1.144)	(4.460)	(0.782)	(0.000)	(0.396)	284
Third quartile	41.92	0.00	23.30	0.30	8.20	0.78	3.53	4.14	1.10	0.00	0.56	
(s.e.)	(4.482)	(0.000)	(3.516)	(0.295)	(1.997)	(0.596)	(1.482)	(2.466)	(0.771)	(0.000)	(0.561)	211
Highest quartile	43.08	0.45	14.93	1.00	10.80	3.17	2.91	8.95	0.87	0.00	0.00	
(s.e.)	(4.616)	(0.446)	(2.738)	(0.706)	(3.029)	(1.206)	(1.251)	(4.788)	(0.581)	(0.000)	(0.000)	279

Table 76—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Postsecondary GPA												
3.5 or over	34.28	0.08	14.28	0.39	6.19	1.84	3.50	6.89	0.79	0.00	0.33	
(s.e.)	(4.085)	(0.076)	(2.759)	(0.234)	(1.341)	(0.872)	(1.253)	(3.109)	(0.388)	(0.000)	(0.330)	734
2.6–3.49	44.74	0.23	18.24	0.42	10.36	3.17	3.44	7.64	0.47	0.00	0.77	
(s.e.)	(4.387)	(0.139)	(2.229)	(0.214)	(1.987)	(1.011)	(0.939)	(3.176)	(0.239)	(0.000)	(0.410)	1,041
1.6–2.59	40.89	0.72	18.22	1.46	7.91	3.22	2.39	5.16	1.03	0.00	0.78	
(s.e.)	(3.661)	(0.487)	(1.923)	(0.615)	(1.792)	(0.854)	(0.660)	(2.176)	(0.518)	(0.000)	(0.353)	719
Under 1.6	43.52	0.69	21.34	2.58	8.66	0.00	4.64	4.83	0.00	0.00	0.77	
(s.e.)	(5.084)	(0.669)	(4.462)	(1.491)	(2.878)	(0.000)	(2.264)	(2.230)	(0.000)	(0.000)	(0.781)	151
Disability status												
Disabled	33.48	0.00	13.64	0.00	5.66	4.05	4.18	3.07	1.41	0.00	1.47	
(s.e.)	(6.351)	(0.000)	(3.903)	(0.000)	(2.153)	(1.544)	(2.040)	(1.598)	(1.068)	(0.000)	(1.462)	149
Physically impaired	39.62	0.00	15.58	0.00	7.03	4.30	4.92	3.54	2.08	0.00	2.16	
(s.e.)	(6.717)	(0.000)	(3.978)	(0.000)	(2.959)	(1.940)	(2.809)	(2.116)	(1.607)	(0.000)	(2.127)	105
Learning disabled	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	22
Multiple disabilities	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	22
Not disabled	40.25	0.42	17.80	0.90	7.46	2.76	2.91	6.74	0.61	0.07	0.57	
(s.e.)	(3.570)	(0.240)	(1.971)	(0.298)	(1.405)	(0.747)	(0.635)	(2.913)	(0.231)	(0.071)	(0.257)	1,736
Missing information	39.12	0.22	16.96	1.14	9.15	2.34	3.17	4.99	0.49	0.00	0.61	
(s.e.)	(3.337)	(0.123)	(1.704)	(0.383)	(1.514)	(0.801)	(0.751)	(1.976)	(0.218)	(0.000)	(0.359)	1,292

Table 76—Percentage of nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married, no dependents	38.96	0.27	15.95	0.97	7.66	3.72	1.99	6.91	0.65	0.07	0.77	
(s.e.)	(3.877)	(0.125)	(1.747)	(0.334)	(1.373)	(0.966)	(0.405)	(2.911)	(0.305)	(0.072)	(0.369)	1,755
Not married, with dependents	47.76	0.00	20.31	0.00	17.75	2.06	2.59	5.05	0.00	0.00	0.00	
(s.e.)	(8.528)	(0.000)	(6.015)	(0.000)	(4.251)	(2.077)	(1.643)	(3.822)	(0.000)	(0.000)	(0.000)	109
Married, no dependents	37.97	0.00	19.03	0.93	5.88	1.10	2.85	6.03	1.49	0.00	0.66	
(s.e.)	(4.003)	(0.000)	(2.924)	(0.663)	(1.362)	(0.654)	(1.234)	(3.070)	(0.830)	(0.000)	(0.465)	292
Married, with dependents	40.54	1.31	19.68	1.00	8.61	1.14	5.27	2.86	0.66	0.00	0.00	
(s.e.)	(4.512)	(0.829)	(2.964)	(0.576)	(2.358)	(0.507)	(1.875)	(1.509)	(0.475)	(0.000)	(0.000)	387

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit 4-year postsecondary institutions in 1989–90, 39.44 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[4] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 77—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected educational characteristics: 1989–90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Total[2]	45.75	0.33	16.81	0.62	10.79	1.72	3.18	5.18	2.52	0.07	4.53	
(s.e.)	(1.549)	(0.080)	(0.754)	(0.136)	(0.726)	(0.208)	(0.316)	(0.434)	(0.294)	(0.033)	(0.515)	5,300
Attendance status[3]												
Full-time	52.07	0.60	17.84	1.19	13.68	2.09	2.23	5.79	3.02	0.11	5.53	
(s.e.)	(2.008)	(0.190)	(1.098)	(0.292)	(1.165)	(0.375)	(0.331)	(0.686)	(0.468)	(0.079)	(0.873)	1,868
Part-time	43.13	0.25	16.54	0.38	9.78	1.61	3.20	5.00	2.38	0.05	3.94	
(s.e.)	(1.809)	(0.082)	(0.920)	(0.125)	(0.766)	(0.262)	(0.409)	(0.494)	(0.337)	(0.038)	(0.531)	3,218
Term enrollment												
Fall	42.93	0.75	16.72	0.40	9.28	1.57	3.06	4.55	2.01	0.00	4.58	
(s.e.)	(2.260)	(0.275)	(1.491)	(0.202)	(1.264)	(0.409)	(0.678)	(0.840)	(0.529)	(0.000)	(0.757)	879
Spring	42.77	0.00	17.12	0.41	7.64	1.37	4.34	4.83	3.59	0.00	3.46	
(s.e.)	(3.390)	(0.000)	(1.703)	(0.293)	(1.186)	(0.470)	(0.967)	(1.078)	(0.826)	(0.000)	(0.932)	614
Both	46.81	0.33	16.87	0.74	11.49	1.99	2.87	5.59	2.21	0.09	4.60	
(s.e.)	(1.602)	(0.112)	(0.847)	(0.196)	(0.876)	(0.287)	(0.321)	(0.522)	(0.348)	(0.054)	(0.633)	3,162
Summer only	40.62	0.00	11.73	0.00	8.32	0.00	2.91	3.75	3.52	0.00	10.40	
(s.e.)	(6.953)	(0.000)	(4.254)	(0.000)	(3.439)	(0.000)	(2.100)	(2.396)	(2.598)	(0.000)	(3.991)	62
Award type being pursued												
Certificate	57.66	0.45	17.23	0.77	14.20	0.99	3.44	5.22	3.80	0.00	11.56	
(s.e.)	(3.922)	(0.254)	(2.099)	(0.390)	(1.856)	(0.383)	(0.929)	(1.061)	(0.913)	(0.000)	(2.157)	741
Associate degree	51.26	0.40	19.66	0.82	13.13	1.75	3.48	5.92	2.64	0.11	3.35	
(s.e.)	(1.722)	(0.113)	(0.973)	(0.199)	(1.027)	(0.255)	(0.424)	(0.595)	(0.329)	(0.057)	(0.544)	3,148
Other[4]	28.46	0.14	10.49	0.14	4.19	2.00	2.41	3.57	1.68	0.00	3.84	
(s.e.)	(2.423)	(0.093)	(1.158)	(0.097)	(0.654)	(0.465)	(0.486)	(0.694)	(0.439)	(0.000)	(0.751)	1,411

First row, first column reads: Of all nonbaccalaureate students attending public 2- to 3-year postsecondary institutions in 1989–90, 45.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 78—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989–90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	45.75	0.33	16.81	0.62	10.79	1.72	3.18	5.18	2.52	0.07	4.53	
(s.e.)	(1.549)	(0.080)	(0.754)	(0.136)	(0.726)	(0.208)	(0.316)	(0.434)	(0.294)	(0.033)	(0.515)	5,300
Sex												
Male	49.19	0.52	15.12	0.74	5.34	0.95	3.29	10.22	4.42	0.12	8.47	
(s.e.)	(1.679)	(0.142)	(0.897)	(0.205)	(0.577)	(0.225)	(0.461)	(0.827)	(0.589)	(0.068)	(1.006)	2,233
Female	42.71	0.20	18.02	0.50	14.97	2.34	2.81	1.34	1.08	0.03	1.42	
(s.e.)	(1.753)	(0.077)	(0.950)	(0.155)	(1.053)	(0.327)	(0.363)	(0.263)	(0.211)	(0.031)	(0.271)	2,964
Race-ethnicity												
White, non-Hispanic	45.39	0.42	16.39	0.70	11.35	1.39	3.00	5.32	2.35	0.05	4.42	
(s.e.)	(1.736)	(0.104)	(0.870)	(0.165)	(0.792)	(0.218)	(0.352)	(0.514)	(0.315)	(0.034)	(0.534)	4,052
Black, non-Hispanic	54.22	0.00	23.29	0.65	11.99	2.27	3.77	2.89	3.13	0.15	6.09	
(s.e.)	(2.863)	(0.000)	(2.041)	(0.371)	(1.938)	(0.556)	(0.897)	(0.822)	(0.851)	(0.148)	(1.634)	532
Hispanic	40.10	0.00	14.45	0.17	6.01	2.92	3.11	5.04	4.94	0.00	3.47	
(s.e.)	(3.349)	(0.000)	(1.955)	(0.169)	(1.361)	(1.008)	(0.808)	(1.131)	(1.334)	(0.000)	(1.010)	405
Asian	45.66	0.00	15.13	0.36	8.42	3.67	5.16	6.70	0.23	0.32	5.67	
(s.e.)	(4.133)	(0.000)	(2.046)	(0.359)	(1.850)	(1.228)	(1.534)	(1.473)	(0.231)	(0.327)	(1.417)	254
Native American	39.98	1.38	14.69	0.00	10.24	0.74	1.36	9.75	0.58	0.00	1.23	
(s.e.)	(7.348)	(1.389)	(4.505)	(0.000)	(4.376)	(0.699)	(1.308)	(5.769)	(0.591)	(0.000)	(1.188)	57
Age												
20 years or under	43.11	0.63	17.57	0.68	8.67	1.77	1.92	5.44	3.05	0.07	3.31	
(s.e.)	(1.679)	(0.198)	(1.080)	(0.219)	(0.800)	(0.387)	(0.356)	(0.701)	(0.544)	(0.069)	(0.564)	1,544
21-23 years	47.48	0.00	16.96	1.30	11.70	2.00	1.48	6.62	2.08	0.12	5.22	
(s.e.)	(2.423)	(0.000)	(1.613)	(0.446)	(1.397)	(0.568)	(0.463)	(1.041)	(0.602)	(0.116)	(0.821)	755
24-29 years	49.36	0.21	16.67	0.29	11.57	1.38	4.20	6.38	2.71	0.08	5.86	
(s.e.)	(2.067)	(0.130)	(1.372)	(0.156)	(1.151)	(0.388)	(0.748)	(0.934)	(0.611)	(0.084)	(0.949)	1,000
30 years or over	44.97	0.31	16.37	0.40	11.42	1.79	4.13	3.90	2.09	0.04	4.53	
(s.e.)	(2.294)	(0.124)	(1.183)	(0.184)	(1.005)	(0.318)	(0.572)	(0.516)	(0.392)	(0.039)	(0.690)	1,956

Table 78—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989-90—Continued[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Dependency status												
Dependent	43.11	0.52	17.66	1.01	8.66	2.04	1.71	5.62	2.49	0.11	3.31	
(s.e.)	(1.642)	(0.166)	(1.008)	(0.261)	(0.778)	(0.360)	(0.313)	(0.664)	(0.456)	(0.076)	(0.535)	1,797
Independent	47.17	0.24	16.39	0.42	11.86	1.56	3.95	4.97	2.55	0.05	5.18	
(s.e.)	(1.877)	(0.086)	(0.933)	(0.131)	(0.884)	(0.235)	(0.436)	(0.478)	(0.361)	(0.033)	(0.611)	3,491
Working for pay												
Fall	44.40	0.37	16.36	0.75	9.63	1.27	1.08	6.99	2.43	0.00	5.53	
(s.e.)	(3.855)	(0.369)	(2.740)	(0.752)	(1.987)	(0.744)	(0.627)	(1.875)	(1.005)	(0.000)	(1.852)	221
Spring	48.02	0.00	19.88	0.59	11.68	1.35	1.91	7.20	0.82	0.00	4.58	
(s.e.)	(4.948)	(0.000)	(3.846)	(0.594)	(2.636)	(0.860)	(1.147)	(2.410)	(0.820)	(0.000)	(1.869)	139
Both	45.89	0.41	16.95	0.60	10.30	1.52	3.29	5.72	2.61	0.08	4.42	
(s.e.)	(1.690)	(0.105)	(0.862)	(0.150)	(0.819)	(0.245)	(0.389)	(0.499)	(0.328)	(0.044)	(0.560)	3,465
Neither	42.90	0.10	15.28	0.66	10.79	2.71	3.39	3.20	2.20	0.00	4.58	
(s.e.)	(2.019)	(0.098)	(1.208)	(0.278)	(1.140)	(0.534)	(0.641)	(0.637)	(0.529)	(0.000)	(0.853)	1,014

First row, first column reads: Of all nonbaccalaureate students attending public 2- to 3-year postsecondary institutions in 1989-90, 45.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 79—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	45.75	0.33	16.81	0.62	10.79	1.72	3.18	5.18	2.52	0.07	4.53	
(s.e.)	(1.549)	(0.080)	(0.754)	(0.136)	(0.726)	(0.208)	(0.316)	(0.434)	(0.294)	(0.033)	(0.515)	5,300
Financial aid status[3]												
Aided	52.92	0.47	18.00	1.14	15.97	1.87	2.66	4.67	3.25	0.17	4.72	
(s.e.)	(2.129)	(0.172)	(1.259)	(0.339)	(1.268)	(0.376)	(0.429)	(0.618)	(0.579)	(0.100)	(0.813)	1,848
Not aided	43.01	0.28	16.35	0.42	8.81	1.67	3.38	5.38	2.24	0.03	4.46	
(s.e.)	(1.573)	(0.084)	(0.776)	(0.111)	(0.695)	(0.247)	(0.385)	(0.498)	(0.313)	(0.027)	(0.518)	3,452
Family background,[4] dependent students												
Lowest quartile	47.20	0.36	18.41	0.93	11.47	2.69	2.34	4.20	2.28	0.00	4.53	
(s.e.)	(2.606)	(0.230)	(2.047)	(0.477)	(1.649)	(0.771)	(0.629)	(0.954)	(0.817)	(0.000)	(1.080)	483
Second quartile	48.40	0.99	17.64	0.93	9.86	1.61	1.67	7.83	3.56	0.17	4.14	
(s.e.)	(2.580)	(0.401)	(1.855)	(0.423)	(1.275)	(0.560)	(0.662)	(1.413)	(0.885)	(0.171)	(1.008)	534
Third quartile	39.33	0.49	16.72	1.13	7.66	2.66	0.78	4.61	2.57	0.00	2.70	
(s.e.)	(2.460)	(0.282)	(1.657)	(0.520)	(1.212)	(0.875)	(0.382)	(1.082)	(0.831)	(0.000)	(0.760)	479
Highest quartile	34.26	0.00	18.04	1.06	4.15	0.85	2.32	5.53	0.88	0.32	1.11	
(s.e.)	(3.219)	(0.000)	(2.509)	(0.650)	(1.192)	(0.484)	(0.873)	(1.524)	(0.480)	(0.325)	(0.679)	301
Family background,[4] independent students												
Lowest quartile	49.00	0.24	16.88	0.31	13.06	2.19	3.34	4.47	2.93	0.00	5.57	
(s.e.)	(2.774)	(0.243)	(1.739)	(0.189)	(1.336)	(0.638)	(0.787)	(0.847)	(0.759)	(0.000)	(1.054)	707
Second quartile	50.05	0.21	18.20	0.59	12.11	0.72	3.09	5.31	2.97	0.00	6.83	
(s.e.)	(2.712)	(0.165)	(1.704)	(0.352)	(1.467)	(0.332)	(0.840)	(1.040)	(0.757)	(0.000)	(1.128)	663
Third quartile	44.62	0.18	14.69	0.52	9.93	0.90	5.19	5.66	2.44	0.15	4.95	
(s.e.)	(2.848)	(0.179)	(1.574)	(0.303)	(1.204)	(0.475)	(1.030)	(1.086)	(0.759)	(0.149)	(0.957)	543
Highest quartile	43.30	0.41	13.58	0.70	12.82	1.51	3.80	5.48	1.89	0.00	3.11	
(s.e.)	(2.877)	(0.292)	(1.473)	(0.355)	(1.977)	(0.558)	(0.976)	(1.215)	(0.793)	(0.000)	(0.855)	485

Table 79—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Postsecondary GPA												
3.5 or over	43.10	0.47	16.56	0.57	8.72	1.11	4.04	4.77	2.24	0.14	4.48	
(s.e.)	(2.074)	(0.194)	(1.280)	(0.324)	(0.853)	(0.294)	(0.727)	(0.680)	(0.488)	(0.098)	(0.749)	1,107
2.6–3.49	47.07	0.26	17.13	0.65	12.88	1.76	3.14	5.57	2.56	0.00	3.12	
(s.e.)	(1.950)	(0.132)	(1.226)	(0.225)	(1.252)	(0.379)	(0.551)	(0.734)	(0.539)	(0.000)	(0.563)	1,316
1.6–2.59	50.58	0.33	20.56	0.50	12.14	2.22	2.47	5.76	2.34	0.08	4.18	
(s.e.)	(2.181)	(0.151)	(1.339)	(0.232)	(1.285)	(0.473)	(0.552)	(0.847)	(0.525)	(0.078)	(0.815)	1,181
Under 1.6	44.87	0.15	18.24	0.44	9.38	2.49	4.71	4.69	2.63	0.00	2.14	
(s.e.)	(2.462)	(0.151)	(1.763)	(0.315)	(1.402)	(0.690)	(1.073)	(1.121)	(0.748)	(0.000)	(0.659)	572
Disability status												
Disabled	43.53	0.18	13.01	0.96	7.48	2.18	4.15	5.69	2.72	0.00	7.15	
(s.e.)	(3.031)	(0.185)	(1.969)	(0.583)	(1.295)	(0.684)	(0.985)	(1.278)	(0.759)	(0.000)	(1.376)	446
Physically impaired	42.28	0.0	15.10	0.52	8.27	1.68	3.48	4.68	2.93	0.00	5.62	
(s.e.)	(3.301)	(0.000)	(2.542)	(0.365)	(1.628)	(0.766)	(1.020)	(1.488)	(0.989)	(0.000)	(1.445)	304
Learning disabled	52.73	0.00	8.45	3.74	8.28	5.29	2.43	9.82	4.43	0.00	10.29	
(s.e.)	(7.126)	(0.000)	(3.795)	(2.733)	(2.858)	(2.511)	(2.374)	(4.369)	(2.562)	(0.000)	(3.582)	69
Multiple disabilities	39.39	1.17	8.76	0.00	3.23	1.09	8.84	5.79	0.00	0.00	10.53	
(s.e.)	(5.689)	(1.173)	(3.656)	(0.000)	(1.813)	(1.093)	(4.313)	(2.531)	(0.000)	(0.000)	(3.592)	73
Not disabled	46.35	0.42	17.60	0.55	10.69	1.81	3.04	5.56	2.49	0.06	4.13	
(s.e.)	(1.595)	(0.121)	(0.837)	(0.151)	(0.778)	(0.277)	(0.351)	(0.548)	(0.342)	(0.045)	(0.574)	3,010
Missing information	45.26	0.23	16.37	0.65	11.74	1.46	3.17	4.42	2.54	0.09	4.59	
(s.e.)	(1.858)	(0.108)	(1.130)	(0.200)	(0.997)	(0.304)	(0.486)	(0.501)	(0.475)	(0.063)	(0.625)	1,844

Table 79—Percentage of nonbaccalaureate students attending public 2- to 3-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989-90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married,												
no dependents	43.30	0.36	17.06	0.82	8.45	1.91	2.48	6.09	2.22	0.11	3.80	
(s.e.)	(1.644)	(0.114)	(0.870)	(0.204)	(0.734)	(0.290)	(0.359)	(0.591)	(0.343)	(0.061)	(0.521)	2,603
Not married,												
with dependents	50.17	0.12	16.62	0.82	16.95	2.19	3.01	1.85	4.15	0.00	4.45	
(s.e.)	(3.464)	(0.117)	(2.357)	(0.484)	(2.179)	(0.798)	(0.965)	(0.788)	(1.209)	(0.000)	(1.271)	370
Married,												
no dependents	49.06	0.44	18.86	0.37	7.81	1.15	5.34	6.34	2.62	0.00	6.13	
(s.e.)	(2.453)	(0.254)	(1.713)	(0.214)	(1.252)	(0.382)	(1.033)	(0.961)	(0.694)	(0.000)	(1.039)	658
Married,												
with dependents	46.77	0.34	13.82	0.20	15.46	1.54	3.79	4.15	2.22	0.00	5.26	
(s.e.)	(2.281)	(0.205)	(1.162)	(0.123)	(1.421)	(0.389)	(0.665)	(0.691)	(0.507)	(0.000)	(0.902)	1,073

First row, first column reads: Of all nonbaccalaureate students attending public 2- to 3-year postsecondary institutions in 1989-90, 45.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[4] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 80—Percentage of nonbaccalaureate students attending public vocational-technical institutes majoring in vocational fields by program area, by selected educational characteristics: 1989–90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	89.51	0.12	17.89	0.79	15.91	4.92	5.61	5.13	7.66	0.05	31.44	
(s.e.)	(1.965)	(0.126)	(2.835)	(0.486)	(3.854)	(2.136)	(1.920)	(1.044)	(5.728)	(0.054)	(4.094)	947
Attendance status[3]												
Full-time	90.01	0.23	15.47	1.40	23.22	3.28	2.75	6.15	2.48	0.00	35.03	
(s.e.)	(3.031)	(0.237)	(3.357)	(0.914)	(5.628)	(1.326)	(1.471)	(1.519)	(1.716)	(0.000)	(5.453)	663
Part-time	86.97	0.00	17.02	0.16	6.36	7.98	11.42	4.96	16.37	0.14	22.55	
(s.e.)	(4.847)	(0.000)	(3.167)	(0.178)	(3.029)	(3.639)	(5.204)	(1.641)	(10.723)	(0.156)	(2.963)	205
Term enrollment												
Fall	88.97	0.00	23.63	1.26	11.40	6.48	7.07	4.78	12.69	0.00	21.65	
(s.e.)	(2.680)	(0.000)	(6.458)	(1.273)	(3.834)	(4.152)	(2.426)	(1.900)	(7.020)	(0.000)	(3.883)	158
Spring	90.63	0.30	17.40	1.63	13.38	9.90	7.78	2.48	11.85	0.00	25.91	
(s.e.)	(3.585)	(0.324)	(4.036)	(1.330)	(6.529)	(4.648)	(4.183)	(2.024)	(9.911)	(0.000)	(9.183)	75
Both	89.92	0.14	16.75	0.24	17.76	1.39	3.66	7.09	4.78	0.00	38.12	
(s.e.)	(2.243)	(0.147)	(3.148)	(0.243)	(2.935)	(0.704)	(1.989)	(1.460)	(4.068)	(0.000)	(4.063)	527
Summer only	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	8
Award type being pursued												
Certificate	90.41	0.17	17.80	1.11	14.24	6.16	7.00	4.55	10.28	0.00	29.09	
(s.e.)	(2.152)	(0.181)	(3.377)	(0.686)	(3.555)	(2.621)	(2.811)	(1.086)	(7.433)	(0.000)	(4.542)	615
Associate degree	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	4
Other[4]	87.01	0.00	18.58	0.00	20.41	1.96	1.90	6.16	1.37	0.18	36.46	
(s.e.)	(5.439)	(0.000)	(4.430)	(0.000)	(9.193)	(1.364)	(0.908)	(1.862)	(0.795)	(0.187)	(7.414)	328

First row, first column reads: Of all nonbaccalaureate students attending public vocational-technical institutes in 1989–90, 89.51 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 81—Percentage of nonbaccalaureate students attending public vocational-technical institutes majoring in vocational fields by program area, by selected student characteristics: 1989–90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	89.51	0.12	17.89	0.79	15.91	4.92	5.61	5.13	7.66	0.05	31.44	
(s.e.)	(1.965)	(0.126)	(2.835)	(0.486)	(3.854)	(2.136)	(1.920)	(1.044)	(5.728)	(0.054)	(4.094)	947
Sex												
Male	89.43	0.12	6.63	0.39	2.74	0.84	3.44	9.29	15.04	0.10	50.84	
(s.e.)	(2.621)	(0.127)	(1.482)	(0.406)	(0.821)	(0.572)	(1.153)	(2.669)	(0.065)	(0.111)	(9.688)	387
Female	89.60	0.14	31.74	1.20	26.24	10.08	7.48	1.18	0.44	0.00	11.10	
(s.e.)	(2.340)	(0.143)	(4.762)	(0.719)	(4.273)	(4.582)	(2.818)	(0.515)	(0.433)	(0.000)	(1.997)	531
Race–ethnicity												
White, non-Hispanic	88.95	0.15	17.32	0.98	13.23	4.86	5.94	5.47	8.54	0.00	32.45	
(s.e.)	(2.185)	(0.156)	(3.153)	(0.603)	(2.839)	(2.556)	(2.133)	(1.093)	(6.392)	(0.000)	(4.361)	780
Black, non-Hispanic	91.07	0.00	16.67	0.00	33.86	5.73	0.46	5.74	0.76	0.00	27.86	
(s.e.)	(3.049)	(0.000)	(6.186)	(0.000)	(13.898)	(3.582)	(0.478)	(2.953)	(0.782)	(0.000)	(8.891)	109
Hispanic	95.11	0.00	30.48	0.00	15.83	4.95	11.41	0.00	12.43	0.93	19.07	
(s.e.)	(4.795)	(0.000)	(11.001)	(0.000)	(9.560)	(2.800)	(7.507)	(0.000)	(8.845)	(0.988)	(8.301)	40
Asian	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	11
Native American	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	7
Age												
20 years or under	91.16	0.23	15.99	0.00	11.15	0.00	1.70	6.19	4.12	0.20	51.57	
(s.e.)	(1.968)	(0.236)	(5.365)	(0.000)	(3.764)	(0.000)	(0.818)	(2.847)	(3.556)	(0.209)	(6.944)	204
21–23 years	87.00	0.00	30.46	1.69	15.70	0.00	4.19	7.37	0.78	0.00	26.81	
(s.e.)	(7.291)	(0.000)	(8.572)	(1.614)	(5.861)	(0.000)	(1.919)	(3.950)	(0.788)	(0.000)	(6.320)	107
24–29 years	83.54	0.00	16.84	1.06	19.19	4.80	3.50	1.99	2.10	0.00	34.06	
(s.e.)	(3.815)	(0.000)	(4.292)	(1.057)	(5.432)	(2.149)	(1.960)	(1.660)	(1.449)	(0.000)	(5.746)	190
30 years or over	90.62	0.16	16.46	0.84	12.46	10.24	8.35	5.71	15.38	0.00	21.04	
(s.e.)	(2.581)	(0.167)	(2.596)	(0.742)	(3.742)	(3.589)	(4.163)	(1.573)	(10.180)	(0.000)	(2.733)	426

Table 81—Percentage of nonbaccalaureate students attending public vocational-technical institutes majoring in vocational fields by program area, by selected student characteristics: 1989-90—Continued[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Dependency status												
Dependent	88.85	0.00	14.40	0.00	8.61	0.00	2.00	6.26	4.04	0.20	53.35	
(s.e.)	(3.295)	(0.000)	(4.470)	(0.000)	(3.705)	(0.000)	(0.954)	(2.630)	(3.546)	(0.205)	(5.823)	198
Independent	89.60	0.17	19.18	1.00	18.69	6.75	6.70	4.80	9.07	0.00	23.25	
(s.e.)	(2.343)	(0.175)	(3.146)	(0.654)	(5.213)	(2.728)	(2.404)	(1.078)	(6.506)	(0.000)	(3.226)	742
Working for pay												
Fall	86.75	0.00	18.75	0.00	10.66	0.00	3.20	4.32	0.00	0.00	49.82	
(s.e.)	(6.763)	(0.000)	(0.258)	(0.000)	(5.466)	(0.000)	(2.783)	(2.753)	(0.000)	(0.000)	(1.980)	41
Spring	93.34	0.00	13.76	3.81	31.80	0.00	6.24	9.64	9.96	0.00	18.12	
(s.e.)	(3.921)	(0.000)	(5.851)	(3.725)	(13.572)	(0.000)	(4.627)	(5.331)	(8.856)	(0.000)	(8.869)	54
Both	89.25	0.24	14.11	0.20	10.12	7.25	5.08	4.52	13.17	0.00	34.55	
(s.e.)	(2.302)	(0.252)	(3.325)	(0.207)	(2.636)	(3.338)	(2.887)	(1.472)	(9.382)	(0.000)	(5.764)	409
Neither	89.55	0.00	25.46	1.29	18.79	1.29	4.89	6.43	0.00	0.00	31.40	
(s.e.)	(3.868)	(0.000)	(4.214)	(1.182)	(4.528)	(1.182)	(2.254)	(2.494)	(0.000)	(0.000)	(4.551)	285

First row, first column reads: Of all nonbaccalaureate students attending public vocational-technical institutes in 1989-90, 89.51 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 82—Percentage of nonbaccalaureate students attending public vocational-technical institutes majoring in vocational fields by program area, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Total[2]	89.51	0.12	17.89	0.79	15.91	4.92	5.61	5.13	7.66	0.05	31.44	
(s.e.)	(1.965)	(0.126)	(2.835)	(0.486)	(3.854)	(2.136)	(1.920)	(1.044)	(5.728)	(0.054)	(4.094)	947
Financial aid status[3]												
Aided	89.39	0.16	19.37	1.19	21.90	4.93	3.41	5.06	7.69	0.00	25.65	
(s.e.)	(2.773)	(0.168)	(5.743)	(1.015)	(5.890)	(1.827)	(0.866)	(1.395)	(5.704)	(0.000)	(5.117)	512
Not aided	89.59	0.10	16.98	0.54	12.25	4.91	6.95	5.18	7.64	0.08	34.98	
(s.e.)	(2.382)	(0.100)	(2.452)	(0.469)	(3.166)	(2.503)	(3.021)	(1.533)	(5.816)	(0.087)	(4.714)	435
Disability status												
Disabled	85.94	0.00	15.56	0.00	4.69	0.15	12.65	4.04	3.34	0.00	45.51	
(s.e.)	(4.487)	(0.000)	(4.759)	(0.000)	(2.299)	(0.152)	(5.894)	(1.832)	(3.076)	(0.000)	(7.907)	90
Physically impaired	88.41	0.00	20.65	0.00	3.63	0.23	11.51	4.35	5.04	0.00	43.00	
(s.e.)	(2.516)	(0.000)	(6.521)	(0.000)	(1.881)	(0.229)	(7.849)	(2.632)	(4.525)	(0.000)	(10.195)	61
Learning disabled	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	8
Multiple disabilities	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	21
Not disabled	93.53	0.24	18.96	0.38	16.18	6.22	4.49	5.25	8.47	0.00	33.32	
(s.e.)	(1.786)	(0.255)	(4.021)	(0.394)	(3.410)	(3.143)	(1.589)	(0.996)	(6.462)	(0.000)	(4.922)	492
Missing information	85.42	0.00	17.14	1.49	18.50	4.52	5.17	5.27	7.76	0.13	25.42	
(s.e.)	(2.829)	(0.000)	(3.910)	(0.900)	(7.138)	(1.939)	(2.288)	(2.164)	(5.497)	(0.135)	(4.359)	365

Table 82—Percentage of nonbaccalaureate students attending public vocational-technical institutes majoring in vocational fields by program area, by selected special populations characteristics: 1989-90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married, no dependents	90.77	0.17	15.44	1.51	12.38	0.59	4.31	6.82	4.32	0.00	45.23	
(s.e.)	(1.799)	(0.174)	(3.628)	(1.028)	(3.160)	(0.512)	(1.581)	(2.040)	(3.573)	(0.000)	(5.427)	290
Not married, with dependents	86.43	0.92	33.01	0.00	26.13	6.92	0.60	3.84	0.00	0.00	15.00	
(s.e.)	(5.163)	(0.939)	(6.844)	(0.000)	(4.859)	(3.534)	(0.617)	(2.421)	(0.000)	(0.000)	(3.972)	95
Married, no dependents	85.93	0.00	12.45	0.69	19.93	4.27	7.66	2.42	9.34	0.00	29.16	
(s.e.)	(6.307)	(0.000)	(3.344)	(0.703)	(6.777)	(3.492)	(3.223)	(1.908)	(8.264)	(0.000)	(5.330)	139
Married, with dependents	94.64	0.00	20.44	0.00	11.58	8.23	6.17	6.29	17.55	0.00	24.39	
(s.e.)	(1.660)	(0.000)	(4.399)	(0.000)	(3.585)	(4.219)	(3.850)	(2.065)	(11.298)	(0.000)	(4.914)	246

First row, first column reads: Of all nonbaccalaureate students attending public vocational-technical institutes in 1989-90, 89.51 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 83—Percentage of nonbaccalaureate students attending private proprietary institutions majoring in vocational fields by program area, by selected educational characteristics: 1989–90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	85.75	0.01	24.91	3.21	10.10	2.50	9.01	6.73	1.24	0.31	27.73	
(s.e.)	(1.715)	(0.011)	(2.952)	(1.066)	(2.092)	(0.673)	(1.785)	(1.119)	(0.491)	(0.185)	(3.376)	7,070
Attendance status[3]												
Full-time	86.75	0.01	25.93	3.70	11.53	2.49	9.26	6.85	1.39	0.41	25.16	
(s.e.)	(1.903)	(0.014)	(3.470)	(1.375)	(2.663)	(0.662)	(2.142)	(1.238)	(0.536)	(0.249)	(3.485)	5,678
Part-time	80.00	0.00	20.56	1.48	3.42	1.66	7.72	4.77	0.90	0.00	39.48	
(s.e.)	(4.080)	(0.000)	(3.554)	(0.761)	(0.978)	(1.090)	(1.944)	(1.699)	(0.782)	(0.000)	(6.581)	972
Award type being pursued												
Certificate	87.11	0.00	22.30	3.26	11.46	1.25	10.85	4.48	1.64	0.42	31.46	
(s.e.)	(2.237)	(0.000)	(3.818)	(1.608)	(2.541)	(0.550)	(2.736)	(0.904)	(0.654)	(0.275)	(4.737)	4,250
Associate degree	78.85	0.06	31.21	5.19	5.31	7.76	7.52	16.18	0.17	0.27	5.19	
(s.e.)	(2.999)	(0.056)	(3.612)	(1.349)	(1.098)	(2.448)	(1.525)	(4.450)	(0.122)	(0.223)	(1.498)	1,391
Other[4]	88.18	0.00	27.17	1.07	10.41	1.35	4.50	4.68	1.00	0.00	38.01	
(s.e.)	(2.662)	(0.000)	(5.920)	(0.453)	(3.369)	(0.642)	(1.252)	(1.650)	(0.710)	(0.000)	(6.435)	1,429

First row, first column reads: Of all nonbaccalaureate students attending private proprietary institutions in 1989–90, 85.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 84—Percentage of nonbaccalaureate students attending private proprietary institutions majoring in vocational fields by program area, by selected student characteristics: 1989–90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Total[2]	85.75	0.01	24.91	3.21	10.10	2.50	9.01	6.73	1.24	0.31	27.73	
(s.e.)	(1.715)	(0.011)	(2.952)	(1.066)	(2.092)	(0.673)	(1.785)	(1.119)	(0.491)	(0.185)	(3.376)	7,070
Sex												
Male	85.75	0.00	14.02	1.16	3.56	1.23	10.54	18.64	1.73	0.80	34.07	
(s.e.)	(2.882)	(0.000)	(2.523)	(0.458)	(0.844)	(0.478)	(2.834)	(2.921)	(0.745)	(0.506)	(4.617)	2,179
Female	83.49	0.02	29.85	4.61	11.82	3.94	9.41	1.07	0.60	0.14	22.03	
(s.e.)	(1.891)	(0.021)	(3.271)	(1.093)	(1.650)	(1.171)	(1.920)	(0.280)	(0.216)	(0.093)	(3.355)	4,040
Race–ethnicity												
White, non-Hispanic	83.75	0.02	21.40	3.81	8.88	3.34	8.25	7.21	0.86	0.50	29.47	
(s.e.)	(1.954)	(0.019)	(2.667)	(1.318)	(1.583)	(1.039)	(1.537)	(1.286)	(0.294)	(0.292)	(3.683)	4,047
Black, non-Hispanic	90.63	0.00	29.94	1.95	15.10	1.69	7.66	5.42	2.42	0.10	26.35	
(s.e.)	(1.637)	(0.000)	(5.643)	(0.965)	(5.055)	(0.651)	(2.013)	(1.413)	(1.114)	(0.104)	(5.410)	1,680
Hispanic	85.95	0.00	30.81	2.23	8.37	0.66	12.81	7.13	0.76	0.00	23.19	
(s.e.)	(2.954)	(0.000)	(5.915)	(0.805)	(2.141)	(0.356)	(4.997)	(1.791)	(0.500)	(0.000)	(4.968)	1,062
Asian	83.42	0.00	21.32	5.72	2.32	3.04	15.16	6.40	1.14	0.00	28.31	
(s.e.)	(4.706)	(0.000)	(6.396)	(2.301)	(1.133)	(1.708)	(5.544)	(2.134)	(0.861)	(0.000)	(6.519)	208
Native American	85.68	0.00	23.21	7.31	7.24	0.84	8.87	6.18	2.04	0.00	29.98	
(s.e.)	(6.218)	(0.000)	(9.219)	(4.208)	(3.989)	(0.863)	(4.815)	(3.569)	(2.068)	(0.000)	(9.200)	73
Age												
20 years or under	86.02	0.00	22.49	5.01	7.49	4.25	8.89	8.99	0.90	0.63	27.37	
(s.e.)	(1.849)	(0.000)	(2.531)	(1.261)	(1.287)	(1.301)	(1.988)	(2.024)	(0.335)	(0.349)	(3.263)	1,945
21–23 years	82.98	0.00	22.86	2.91	7.88	3.35	12.14	7.34	1.87	0.49	24.16	
(s.e.)	(2.574)	(0.000)	(2.887)	(0.821)	(1.445)	(1.698)	(2.827)	(1.633)	(0.854)	(0.332)	(3.155)	1,108
24–29 years	84.71	0.00	25.10	1.73	10.09	1.94	10.08	7.21	1.03	0.22	27.30	
(s.e.)	(2.711)	(0.000)	(3.243)	(0.904)	(1.722)	(0.591)	(2.413)	(1.301)	(0.422)	(0.159)	(3.525)	1,450
30 years or over	84.26	0.05	25.41	2.99	10.18	2.34	9.01	6.76	0.67	0.18	26.67	
(s.e.)	(2.259)	(0.048)	(3.129)	(1.039)	(1.796)	(0.869)	(1.973)	(1.193)	(0.230)	(0.182)	(3.267)	1,762

Table 84—Percentage of nonbaccalaureate students attending private proprietary institutions majoring in vocational fields by program area, by selected student characteristics: 1989-90—Continued[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Dependency status												
Dependent	84.72	0.00	20.58	5.05	7.47	4.49	8.68	9.79	1.23	0.62	26.80	
(s.e.)	(2.063)	(0.000)	(2.516)	(1.279)	(1.492)	(1.401)	(1.921)	(2.347)	(0.500)	(0.347)	(3.114)	1,929
Independent	86.11	0.01	26.56	2.57	11.14	1.80	9.18	5.65	1.27	0.20	27.73	
(s.e.)	(1.878)	(0.015)	(3.285)	(1.104)	(2.411)	(0.559)	(1.933)	(0.884)	(0.515)	(0.134)	(3.664)	5,103

First row, first column reads: Of all nonbaccalaureate students attending private proprietary institutions in 1989-90, 85.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 85—Percentage of nonbaccalaureate students attending private proprietary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	85.75	0.01	24.91	3.21	10.10	2.50	9.01	6.73	1.24	0.31	27.73	
(s.e.)	(1.715)	(0.011)	(2.952)	(1.066)	(2.092)	(0.673)	(1.785)	(1.119)	(0.491)	(0.185)	(3.376)	7,070
Financial aid status[3]												
Aided	86.72	0.01	26.53	3.32	11.36	1.73	9.62	6.78	1.35	0.21	25.81	
(s.e.)	(1.664)	(0.013)	(3.257)	(1.249)	(2.474)	(0.423)	(2.013)	(1.155)	(0.531)	(0.130)	(3.404)	6,002
Not aided	81.71	0.00	18.19	2.76	4.84	5.69	6.45	6.53	0.77	0.73	35.75	
(s.e.)	(3.548)	(0.000)	(3.041)	(0.758)	(1.190)	(2.086)	(1.377)	(1.502)	(0.476)	(0.431)	(5.153)	1,068
Disability status												
Disabled	87.23	0.00	23.17	2.21	8.61	1.79	12.54	9.74	1.05	0.81	27.31	
(s.e.)	(2.255)	(0.000)	(3.708)	(1.081)	(1.712)	(0.850)	(3.105)	(2.495)	(0.452)	(0.578)	(3.930)	486
Physically impaired	88.45	0.00	23.17	1.97	9.86	1.95	12.43	10.70	1.01	0.86	26.51	
(s.e.)	(2.516)	(0.000)	(3.902)	(0.923)	(2.241)	(1.144)	(3.222)	(2.585)	(0.473)	(0.633)	(4.161)	333
Learning disabled	77.49	0.00	12.81	3.24	2.13	1.79	3.09	3.73	2.12	2.19	46.38	
(s.e.)	(7.932)	(0.000)	(4.620)	(2.414)	(1.964)	(1.797)	(2.107)	(2.303)	(2.081)	(2.194)	(10.050)	52
Multiple disabilities	87.90	0.00	27.89	2.48	7.74	1.30	17.24	9.54	0.68	0.00	21.03	
(s.e.)	(4.827)	(0.000)	(6.438)	(2.456)	(2.980)	(0.959)	(6.103)	(4.341)	(0.684)	(0.000)	(5.278)	101
Not disabled	84.38	0.03	24.28	3.21	8.76	3.89	9.75	7.64	0.83	0.46	25.54	
(s.e.)	(1.961)	(0.030)	(2.631)	(0.812)	(1.355)	(1.139)	(2.026)	(1.448)	(0.277)	(0.269)	(3.008)	2,689
Missing information	86.43	0.00	25.51	3.32	11.10	1.72	8.14	5.82	1.52	0.16	29.14	
(s.e.)	(1.966)	(0.000)	(3.483)	(1.319)	(2.918)	(0.460)	(1.737)	(0.997)	(0.699)	(0.102)	(4.034)	3,895

Table 85—Percentage of nonbaccalaureate students attending private proprietary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married, no dependents	83.04	0.00	21.92	4.06	6.59	3.96	9.72	10.37	1.10	0.61	24.70	
(s.e.)	(2.391)	(0.000)	(2.596)	(1.065)	(1.103)	(1.128)	(1.979)	(2.131)	(0.412)	(0.339)	(2.950)	2,356
Not married, with dependents	89.48	0.00	32.53	2.63	12.68	2.55	8.38	2.47	1.04	0.00	27.20	
(s.e.)	(1.812)	(0.000)	(4.016)	(0.922)	(2.169)	(1.206)	(2.402)	(0.684)	(0.444)	(0.000)	(4.158)	743
Married, no dependents	83.40	0.00	21.05	2.25	9.22	4.31	12.56	6.71	0.86	0.90	25.55	
(s.e.)	(2.613)	(0.000)	(3.422)	(0.822)	(1.997)	(2.113)	(3.501)	(1.516)	(0.488)	(0.640)	(4.093)	524
Married, with dependents	86.45	0.09	24.17	1.45	10.95	2.52	9.59	7.78	0.67	0.26	28.96	
(s.e.)	(2.116)	(0.092)	(3.337)	(0.537)	(2.075)	(1.136)	(2.043)	(1.686)	(0.516)	(0.257)	(3.719)	871

First row, first column reads: Of all nonbaccalaureate students attending private proprietary institutions in 1989–90, 85.75 percent reported majoring in vocational fields.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 86—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected educational characteristics: 1989–90[1]

Educational characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	65.30	1.72	20.34	0.71	18.71	6.68	2.63	3.49	1.39	0.00	9.62	
(s.e.)	(4.563)	(0.764)	(4.628)	(0.223)	(3.625)	(2.303)	(0.607)	(0.882)	(0.688)	(0.000)	(2.599)	2,055
Attendance status[3]												
Full-time	64.52	2.46	17.77	0.98	22.11	6.23	2.24	2.99	1.34	0.00	8.39	
(s.e.)	(5.660)	(1.115)	(5.478)	(0.325)	(4.715)	(2.372)	(0.651)	(0.772)	(0.624)	(0.000)	(2.702)	1,574
Part-time	58.49	0.47	27.69	0.33	11.76	2.66	3.10	2.70	2.17	0.00	7.61	
(s.e.)	(5.074)	(0.330)	(5.134)	(0.230)	(3.215)	(0.890)	(1.071)	(1.533)	(1.853)	(0.000)	(2.703)	331
Term enrollment												
Fall	68.36	0.46	24.02	0.84	19.74	8.89	3.51	2.92	1.03	0.00	6.96	
(s.e.)	(5.918)	(0.467)	(6.148)	(0.600)	(6.201)	(4.369)	(1.692)	(1.202)	(0.728)	(0.000)	(3.003)	202
Spring	64.99	2.41	21.91	0.00	5.87	8.89	2.97	4.01	0.00	0.00	18.92	
(s.e.)	(9.785)	(2.318)	(6.688)	(0.000)	(2.596)	(4.615)	(1.838)	(2.820)	(0.000)	(0.000)	(8.583)	90
Both	65.36	2.61	17.08	1.12	24.12	5.97	2.81	2.89	1.61	0.00	7.15	
(s.e.)	(4.068)	(1.298)	(3.023)	(0.387)	(4.225)	(2.173)	(0.888)	(0.943)	(0.725)	(0.000)	(2.605)	1,232
Summer only	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	12
Award type being pursued												
Certificate	76.15	0.35	26.31	0.26	23.64	2.53	2.53	5.14	0.04	0.00	15.35	
(s.e.)	(6.326)	(0.341)	(8.448)	(0.205)	(6.395)	(1.446)	(1.129)	(1.671)	(0.030)	(0.000)	(4.656)	881
Associate degree	59.63	3.81	19.33	1.42	9.84	11.79	3.30	2.73	3.03	0.00	4.38	
(s.e.)	(6.438)	(1.799)	(4.024)	(0.496)	(2.120)	(5.050)	(0.961)	(0.863)	(1.543)	(0.000)	(2.806)	792
Other[4]	54.36	0.25	9.91	0.18	26.88	4.70	1.45	1.65	0.81	0.00	8.52	
(s.e.)	(8.761)	(0.252)	(3.420)	(0.182)	(0.296)	(3.069)	(0.961)	(0.797)	(0.802)	(0.000)	(3.454)	382

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions in 1989–90, 65.30 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[4] Includes coursetakers not enrolled in a formal program.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 87—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989–90[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	65.30	1.72	20.34	0.71	18.71	6.68	2.63	3.49	1.39	0.00	9.62	
(s.e.)	(4.563)	(0.764)	(4.628)	(0.223)	(3.625)	(2.303)	(0.607)	(0.882)	(0.688)	(0.000)	(2.599)	2,055
Sex												
Male	64.48	2.03	11.00	0.48	9.33	8.63	3.52	7.93	2.30	0.00	19.25	
(s.e.)	(5.404)	(1.119)	(1.988)	(0.218)	(2.179)	(4.455)	(1.044)	(1.870)	(1.110)	(0.000)	(5.508)	744
Female	65.68	1.83	22.87	1.01	26.09	5.93	2.44	0.83	0.93	0.00	3.76	
(s.e.)	(4.586)	(0.828)	(5.182)	(0.350)	(5.104)	(1.697)	(0.789)	(0.350)	(0.607)	(0.000)	(1.762)	1,230
Race-ethnicity												
White, non-Hispanic	59.08	2.48	14.93	0.83	19.79	7.12	2.55	2.92	1.64	0.00	6.83	
(s.e.)	(4.876)	(1.076)	(3.102)	(0.293)	(3.653)	(2.846)	(0.665)	(1.016)	(0.731)	(0.000)	(2.523)	1,484
Black, non-Hispanic	80.08	0.00	28.49	0.90	23.45	6.15	4.51	1.97	2.01	0.00	12.60	
(s.e.)	(5.816)	(0.000)	(10.597)	(0.536)	(14.282)	(3.506)	(2.674)	(1.142)	(1.950)	(0.000)	(8.888)	236
Hispanic	82.25	0.00	39.12	0.21	11.48	4.81	0.79	6.71	0.10	0.00	19.04	
(s.e.)	(6.711)	(0.000)	(13.830)	(0.226)	(5.646)	(3.281)	(0.515)	(2.985)	(0.083)	(0.000)	(4.468)	265
Asian	54.29	0.00	12.11	0.00	10.27	10.42	7.62	3.69	0.00	0.00	10.19	
(s.e.)	(11.199)	(0.000)	(5.212)	(0.000)	(4.991)	(8.157)	(5.721)	(2.576)	(0.000)	(0.000)	(6.643)	55
Native American	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	15
Age												
20 years or under	58.23	3.49	17.35	1.62	16.32	5.39	2.83	4.08	2.76	0.00	4.39	
(s.e.)	(4.322)	(1.513)	(3.148)	(0.568)	(2.998)	(1.732)	(0.824)	(0.984)	(1.193)	(0.000)	(1.698)	846
21–23 years	59.83	1.05	15.02	0.23	22.48	10.29	1.16	2.52	0.00	0.00	7.08	
(s.e.)	(6.020)	(1.062)	(3.973)	(0.231)	(4.423)	(3.862)	(0.443)	(1.074)	(0.000)	(0.000)	(2.364)	335
24–29 years	74.70	0.70	23.50	0.39	17.63	9.52	2.14	5.52	1.77	0.00	13.53	
(s.e.)	(5.728)	(0.532)	(6.966)	(0.283)	(5.498)	(4.208)	(1.677)	(2.837)	(1.674)	(0.000)	(5.995)	335
30 years or over	69.28	0.87	18.97	0.15	23.76	4.02	4.74	2.18	0.44	0.00	14.14	
(s.e.)	(5.499)	(0.690)	(4.349)	(0.155)	(6.033)	(1.824)	(1.682)	(0.863)	(0.436)	(0.000)	(5.209)	481
Dependency status												
Dependent	57.82	2.97	17.79	1.43	16.50	6.21	1.86	3.97	2.29	0.00	4.80	
(s.e.)	(4.404)	(1.403)	(3.226)	(0.483)	(2.966)	(2.165)	(0.412)	(0.921)	(0.995)	(0.000)	(1.523)	976
Independent	70.29	0.81	20.90	0.19	20.88	6.77	3.29	3.17	0.74	0.00	13.55	
(s.e.)	(4.969)	(0.380)	(5.434)	(0.107)	(5.008)	(2.489)	(1.025)	(1.233)	(0.550)	(0.000)	(3.926)	1,071

Table 87—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected student characteristics: 1989-90—Continued[1]

Student characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi- cations technologies	Trade & industry	Un- weighted Ns
Working for pay												
Fall	56.57	1.38	13.98	1.03	18.73	15.13	0.94	2.58	0.00	0.00	2.79	
(s.e.)	(6.833)	(1.039)	(4.021)	(0.746)	(4.684)	(7.513)	(0.544)	(1.239)	(0.000)	(0.000)	(1.319)	167
Spring	59.53	1.17	20.29	1.04	18.42	12.32	1.60	0.72	1.06	0.00	2.91	
(s.e.)	(11.843)	(1.194)	(7.184)	(1.021)	(7.548)	(7.439)	(1.595)	(0.708)	(1.066)	(0.000)	(2.133)	72
Both	65.92	2.96	20.35	0.74	18.34	6.38	2.99	3.80	1.04	0.00	9.32	
(s.e.)	(4.961)	(1.292)	(4.835)	(0.298)	(3.425)	(2.718)	(0.830)	(1.447)	(0.470)	(0.000)	(3.698)	931
Neither	66.22	0.85	16.66	0.84	22.10	4.26	3.63	1.99	1.84	0.00	14.06	
(s.e.)	(5.518)	(0.525)	(3.841)	(0.417)	(6.045)	(2.585)	(1.816)	(0.737)	(1.520)	(0.000)	(4.844)	396

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions in 1989-90, 65.30 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 88—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989-90[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Total[2]	65.30	1.72	20.34	0.71	18.71	6.68	2.63	3.49	1.39	0.00	9.62	
(s.e.)	(4.563)	(0.764)	(4.628)	(0.223)	(3.625)	(2.303)	(0.607)	(0.882)	(0.688)	(0.000)	(2.599)	2,055
Financial aid status[3]												
Aided	68.99	1.67	23.27	0.94	20.26	6.46	2.60	3.35	1.23	0.00	9.21	
(s.e.)	(4.674)	(0.750)	(5.813)	(0.319)	(4.525)	(2.131)	(0.695)	(0.857)	(0.781)	(0.000)	(2.656)	1,337
Not aided	59.92	1.80	16.07	0.38	16.45	6.99	2.68	3.70	1.63	0.00	10.22	
(s.e.)	(5.734)	(0.850)	(3.711)	(0.182)	(3.219)	(3.096)	(1.032)	(1.478)	(0.802)	(0.000)	(3.917)	718
Family background,[4] dependent students												
Lowest quartile	64.95	0.67	30.46	1.22	13.45	3.75	2.92	3.74	2.98	0.00	5.76	
(s.e.)	(5.366)	(0.400)	(6.450)	(0.653)	(3.324)	(1.233)	(0.875)	(1.136)	(1.858)	(0.000)	(2.122)	328
Second quartile	62.52	2.17	12.74	2.03	22.59	10.00	1.15	3.15	1.19	0.00	7.51	
(s.e.)	(5.375)	(1.126)	(3.138)	(0.819)	(4.391)	(4.778)	(0.581)	(0.994)	(0.567)	(0.000)	(3.195)	278
Third quartile	51.61	3.15	9.11	1.25	16.30	7.52	1.61	8.37	1.69	0.00	2.60	
(s.e.)	(6.578)	(1.883)	(2.658)	(0.719)	(3.623)	(3.281)	(0.803)	(3.078)	(0.810)	(0.000)	(0.909)	209
Highest quartile	43.07	8.96	10.99	1.09	12.95	3.27	1.15	0.00	3.50	0.00	1.15	
(s.e.)	(6.332)	(4.125)	(2.573)	(0.808)	(3.364)	(2.022)	(0.804)	(0.000)	(3.410)	(0.000)	(0.825)	161
Family background,[4] independent students												
Lowest quartile	78.83	0.55	26.73	0.00	20.95	5.08	1.73	7.63	0.00	0.00	16.16	
(s.e.)	(5.393)	(0.551)	(7.793)	(0.000)	(6.085)	(2.553)	(1.029)	(4.937)	(0.000)	(0.000)	(5.819)	176
Second quartile	74.79	2.14	14.50	0.40	28.83	7.53	4.96	2.17	0.54	0.00	13.72	
(s.e.)	(5.395)	(1.726)	(5.114)	(0.411)	(6.226)	(3.948)	(2.261)	(1.282)	(0.539)	(0.000)	(5.681)	182
Third quartile	70.29	0.72	22.97	0.00	19.54	7.57	5.60	2.14	2.30	0.00	9.45	
(s.e.)	(7.370)	(0.732)	(7.270)	(0.000)	(4.988)	(3.850)	(4.112)	(1.371)	(2.293)	(0.000)	(4.743)	145
Highest quartile	65.53	2.45	17.10	0.00	14.88	12.56	4.30	1.67	0.00	0.00	12.56	
(s.e.)	(8.894)	(1.501)	(8.031)	(0.000)	(4.666)	(6.695)	(3.537)	(1.402)	(0.000)	(0.000)	(7.562)	109

Table 88—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989-90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un weighted Ns
Hours of remedial instruction												
None	64.82	1.44	20.31	0.48	19.85	7.33	2.30	3.85	1.31	0.00	7.94	
(s.e.)	(4.656)	(0.656)	(5.358)	(0.150)	(4.118)	(2.568)	(0.613)	(1.091)	(0.854)	(0.000)	(1.954)	1,430
1-100	68.90	2.26	20.38	2.35	13.50	3.83	2.58	2.07	0.00	0.00	21.93	
(s.e.)	(9.618)	(2.305)	(8.346)	(1.644)	(4.305)	(2.337)	(1.925)	(1.528)	(0.000)	(0.000)	(4.717)	62
Greater than 100	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	16
Disability status												
Disabled	52.81	2.97	18.80	1.20	13.52	4.54	1.01	3.35	0.00	0.00	7.43	
(s.e.)	(6.447)	(2.414)	(4.718)	(0.851)	(4.343)	(2.979)	(0.718)	(1.941)	(0.000)	(0.000)	(3.246)	130
Physically impaired	56.25	3.38	20.61	0.75	14.55	4.65	0.80	3.79	0.00	0.00	7.71	
(s.e.)	(8.386)	(3.274)	(6.524)	(0.750)	(4.466)	(3.822)	(0.815)	(2.572)	(0.000)	(0.000)	(4.116)	85
Learning disabled	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	21
Multiple disabilities	—	—	—	—	—	—	—	—	—	—	—	
(s.e.)	—	—	—	—	—	—	—	—	—	—	—	24
Not disabled	65.52	2.81	17.88	0.88	21.41	8.11	2.95	2.20	0.89	0.00	8.40	
(s.e.)	(4.877)	(1.266)	(3.408)	(0.339)	(3.615)	(3.311)	(0.749)	(0.771)	(0.465)	(0.000)	(2.627)	976
Missing information	66.66	0.60	22.73	0.51	16.94	5.66	2.55	4.67	2.02	0.00	10.98	
(s.e.)	(5.109)	(0.285)	(6.757)	(0.196)	(4.301)	(1.977)	(0.968)	(1.370)	(1.041)	(0.000)	(2.980)	949

Table 88—Percentage of nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions majoring in vocational fields by program area, by selected special populations characteristics: 1989–90—Continued[1]

Special populations characteristics	Total vocational enrollment	Agriculture	Business & office	Marketing & distribution	Health	Home economics	Computers/ data processing	Engineering/ science technologies	Protective services	Communi-cations technologies	Trade & industry	Un-weighted Ns
Marital status												
Not married, no dependents	62.07	3.02	17.19	1.15	17.40	8.39	1.74	3.79	1.24	0.00	8.15	
(s.e.)	(4.661)	(1.363)	(3.014)	(0.407)	(3.133)	(3.503)	(0.453)	(1.333)	(0.611)	(0.000)	(3.015)	1,081
Not married, with dependents	81.41	0.62	37.56	0.00	25.36	1.55	5.99	0.49	0.64	0.00	9.20	
(s.e.)	(6.061)	(0.642)	(11.418)	(0.000)	(10.042)	(1.142)	(5.103)	(0.503)	(0.649)	(0.000)	(7.272)	106
Married, no dependents	65.00	1.57	18.58	0.00	16.79	9.91	6.17	1.39	1.69	0.00	8.91	
(s.e.)	(7.867)	(0.909)	(8.273)	(0.000)	(5.071)	(4.366)	(3.584)	(0.994)	(1.677)	(0.000)	(5.157)	148
Married, with dependents	69.47	0.00	15.18	0.35	28.25	0.81	3.92	3.02	0.00	0.00	17.95	
(s.e.)	(7.083)	(0.000)	(3.732)	(0.351)	(7.150)	(0.596)	(2.179)	(1.230)	(0.000)	(0.000)	(7.006)	218

First row, first column reads: Of all nonbaccalaureate students attending private, nonprofit less-than-4-year postsecondary institutions in 1989–90, 65.30 percent reported majoring in vocational fields.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Indicates whether a student received any financial aid, including federal loans and grants, and state and institutional aid. The state and institutional financial aid categories include both need-based and merit-based aid.

[4] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

NOTE: Estimates may not sum to the total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 89—Percentage of nonbaccalaureate students attending postsecondary institutions by attendance status, term enrollment, and award type, by type of program and institution: 1989–90[1]

Program and institution type	Attendance status[2]		Term enrollment				Award type		
	Full-time	Part-time	Fall	Spring	Both	Summers only	Certificate	Associate degree	Other[3]
Total[4]	42.91	57.09	6.57	70.36	20.88	2.20	24.16	45.41	30.43
(s.e.)	(1.369)	(1.369)	(0.737)	(1.526)	(1.261)	(0.401)	(1.611)	(1.753)	(1.615)
Unweighted Ns	20,023	20,023	21,046	21,046	21,046	21,046	21,237	21,237	21,237
Program type[5]									
Academic	42.62	57.38	6.97	71.79	20.54	0.70	21.22	49.17	29.61
(s.e.)	(1.881)	(1.881)	(1.198)	(1.964)	(1.670)	(0.258)	(2.324)	(2.554)	(2.151)
Unweighted Ns	4,295	4,295	4,468	4,468	4,468	4,468	4,495	4,495	4,495
Vocational	50.75	49.25	5.79	69.76	20.53	3.93	32.23	47.43	20.34
(s.e.)	(1.622)	(1.622)	(0.681)	(1.646)	(1.332)	(0.728)	(1.956)	(1.976)	(1.422)
Unweighted Ns	12,390	12,390	13,030	13,030	13,030	13,030	13,182	13,182	13,182
Other	27.00	73.00	7.75	70.18	21.93	0.14	10.25	37.54	52.21
(s.e.)	(1.902)	(1.902)	(1.204)	(2.535)	(2.331)	(0.055)	(1.623)	(2.712)	(3.011)
Unweighted Ns	3,338	3,338	3,548	3,548	3,548	3,548	3,560	3,560	3,560
Institution type									
Public 4-year	61.44	38.56	7.54	80.90	11.56	0.00	28.83	12.70	58.47
(s.e.)	(3.261)	(3.261)	(1.432)	(2.705)	(1.959)	(0.000)	(5.423)	(2.169)	(5.137)
Unweighted Ns	2,539	2,539	2,673	2,673	2,673	2,673	2,688	2,688	2,688
Private, nonprofit 4-year	56.11	43.89	3.61	81.17	15.22	0.00	36.75	15.97	47.28
(s.e.)	(3.643)	(3.643)	(0.875)	(2.730)	(2.523)	(0.000)	(5.596)	(3.384)	(4.863)
Unweighted Ns	2,975	2,975	3,167	3,167	3,167	3,167	3,177	3,177	3,177
Public 2- to 3-year	29.84	70.16	5.91	72.59	21.50	0.00	12.71	59.53	27.76
(s.e.)	(1.310)	(1.310)	(1.039)	(2.094)	(1.703)	(0.000)	(1.785)	(2.383)	(2.160)
Unweighted Ns	5,086	5,086	5,277	5,277	5,277	5,277	5,300	5,300	5,300
Public vocational-technical	59.16	40.84	7.24	54.50	32.90	5.36	70.71	0.77	28.52
(s.e.)	(6.972)	(6.972)	(2.829)	(5.040)	(7.283)	(3.395)	(8.612)	(0.775)	(8.485)
Unweighted Ns	868	868	931	931	931	931	947	947	947
Private proprietary	83.02	16.98	9.70	50.11	24.83	15.36	62.04	18.93	19.03
(s.e.)	(2.142)	(2.142)	(1.306)	(2.669)	(2.457)	(2.528)	(3.228)	(2.283)	(2.391)
Unweighted Ns	6,650	6,650	6,968	6,968	6,968	6,968	7,070	7,070	7,070
Private, nonprofit less-than-4-year	76.27	23.73	9.05	64.42	22.03	4.50	40.45	40.27	19.28
(s.e.)	(4.001)	(4.001)	(2.070)	(4.966)	(3.187)	(3.081)	(6.231)	(5.709)	(3.725)
Unweighted Ns	1,905	1,905	2,030	2,030	2,030	2,030	2,055	2,055	2,055

Table 89—Percentage of nonbaccalaureate students attending postsecondary institutions by attendance status, term enrollment, and award type, by type of program and institution: 1989–90—Continued[1]

Program and institution type	Attendance status[2]		Term enrollment				Award type		
	Full-time	Part-time	Fall	Spring	Both	Summers only	Certificate	Associate degree	Other[3]
Public 4-year									
Academic	64.24	35.76	6.84	82.92	10.23	0.00	33.27	12.09	54.63
(s.e.)	(3.676)	(3.676)	(1.744)	(3.026)	(2.180)	(0.000)	(5.923)	(2.890)	(5.870)
Unweighted Ns	840	840	876	876	876	876	882	882	882
Vocational	73.87	26.13	3.76	89.06	7.17	0.00	38.21	20.84	40.96
(s.e.)	(3.128)	(3.128)	(1.001)	(2.332)	(1.967)	(0.000)	(7.673)	(4.140)	(7.013)
Unweighted Ns	926	926	970	970	970	970	974	974	974
Other	44.89	55.11	12.29	70.13	17.58	0.00	14.32	4.62	81.06
(s.e.)	(4.342)	(4.342)	(2.772)	(4.042)	(3.021)	(0.000)	(3.012)	(1.314)	(3.305)
Unweighted Ns	773	773	827	827	827	827	832	832	832
Private, nonprofit 4-year									
Academic	70.72	29.28	2.55	81.80	15.64	0.00	43.60	10.89	45.51
(s.e.)	(5.237)	(5.237)	(0.813)	(4.233)	(4.133)	(0.000)	(7.669)	(3.226)	(7.441)
Unweighted Ns	931	931	957	957	957	957	963	963	963
Vocational	56.52	43.48	2.38	85.32	12.31	0.00	39.79	28.06	32.15
(s.e.)	(3.843)	(3.843)	(0.831)	(2.903)	(2.769)	(0.000)	(7.554)	(5.775)	(5.156)
Unweighted Ns	1,192	1,192	1,294	1,294	1,294	1,294	1,296	1,296	1,296
Other	41.16	58.84	6.20	75.24	18.56	0.00	26.31	5.43	68.26
(s.e.)	(5.357)	(5.357)	(1.895)	(3.960)	(3.296)	(0.000)	(5.887)	(1.807)	(5.724)
Unweighted Ns	852	852	916	916	916	916	918	918	918
Private, nonprofit less-than-4-year									
Academic	80.94	19.06	15.06	63.60	19.81	1.53	31.43	52.47	16.10
(s.e.)	(3.598)	(3.598)	(5.045)	(5.216)	(5.251)	(1.114)	(8.868)	(10.348)	(5.982)
Unweighted Ns	459	459	494	494	494	494	495	495	495
Vocational	78.00	22.00	6.16	66.83	20.49	6.52	47.18	36.77	16.05
(s.e.)	(4.444)	(4.444)	(2.190)	(7.173)	(3.986)	(4.678)	(7.102)	(6.013)	(4.184)
Unweighted Ns	1,262	1,262	1,339	1,339	1,339	1,339	1,363	1,363	1,363
Other	56.76	43.24	11.53	52.98	35.49	0.00	19.61	34.17	46.22
(s.e.)	(10.648)	(10.648)	(3.762)	(9.172)	(8.399)	(0.000)	(8.048)	(9.717)	(11.038)
Unweighted Ns	184	184	197	197	197	197	197	197	197

Table 89—Percentage of nonbaccalaureate students attending postsecondary institutions by attendance status, term enrollment, and award type, by type of program and institution: 1989–90—Continued[1]

Program and institution type	Attendance status[2]		Term enrollment				Award type		
	Full-time	Part-time	Fall	Spring	Both	Summers only	Certificate	Associate degree	Other[3]
Public 2- to 3-year									
Academic	31.23	68.77	6.80	71.11	22.09	0.00	12.65	61.85	25.50
(s.e.)	(2.001)	(2.001)	(1.633)	(2.520)	(2.121)	(0.000)	(2.824)	(3.356)	(2.638)
Unweighted Ns	1,256	1,256	1,291	1,291	1,291	1,291	1,297	1,297	1,297
Vocational	33.93	66.07	4.73	74.87	20.41	0.00	16.02	66.71	17.27
(s.e.)	(1.624)	(1.624)	(0.986)	(2.228)	(1.835)	(0.000)	(2.160)	(2.468)	(1.858)
Unweighted Ns	2,439	2,439	2,534	2,534	2,534	2,534	2,549	2,549	2,549
Other	22.06	77.94	7.01	70.29	22.70	0.00	7.52	46.12	46.37
(s.e.)	(2.023)	(2.023)	(1.442)	(3.139)	(2.877)	(0.000)	(1.877)	(3.433)	(3.810)
Unweighted Ns	1,391	1,391	1,452	1,452	1,452	1,452	1,454	1,454	1,454

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989–90, 42.91 percent were enrolled full time.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Students were defined as attending full time by institutional criteria. Part-time students were attending any amount less than full time.

[3] Includes coursetakers not enrolled in a formal program.

[4] Included in the total are students who may be missing data on particular row variables.

[5] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Estimates may not sum within column groupings to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

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Table 90—Percentage of nonbaccalaureate students attending postsecondary institutions by sex, race–ethnicity, and age, by type of program and institution: 1989–90[1]

Program and institution type	Sex		Race–ethnicity					Age			
	Male	Female	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian	Native American	20 years or under	21–23 years	24–29 years	30 years or over
Total[2]	43.04	56.96	73.57	11.50	9.38	4.59	0.96	30.82	16.69	18.85	33.64
(s.e.)	(0.711)	(0.711)	(1.360)	(0.964)	(0.748)	(0.446)	(0.126)	(0.859)	(0.476)	(0.471)	(0.938)
Unweighted Ns	20,015	20,015	21,237	21,237	21,237	21,237	21,237	20,180	20,180	20,180	20,180
Program type[3]											
Academic	39.42	60.58	76.93	8.43	9.38	4.19	1.07	34.45	18.43	16.75	30.37
(s.e.)	(1.307)	(1.307)	(1.852)	(1.057)	(1.103)	(0.658)	(0.293)	(1.232)	(1.001)	(0.872)	(1.254)
Unweighted Ns	4,358	4,358	4,495	4,495	4,495	4,495	4,495	4,379	4,379	4,379	4,379
Vocational	45.51	54.49	70.64	14.55	9.63	4.30	0.88	29.57	16.98	20.51	32.94
(s.e.)	(0.947)	(0.947)	(1.479)	(1.163)	(0.892)	(0.434)	(0.140)	(0.949)	(0.569)	(0.630)	(1.001)
Unweighted Ns	12,215	12,215	13,182	13,182	13,182	13,182	13,182	12,331	12,331	12,331	12,331
Other	41.72	58.28	76.35	8.18	8.86	5.58	1.03	29.77	14.39	17.61	38.23
(s.e.)	(1.402)	(1.402)	(2.212)	(1.182)	(1.164)	(0.956)	(0.248)	(1.798)	(0.857)	(0.857)	(2.152)
Unweighted Ns	3,442	3,442	3,560	3,560	3,560	3,560	3,560	3,470	3,470	3,470	3,470
Institution type											
Public 4-year	45.32	54.68	80.85	8.05	5.86	4.54	0.70	42.03	23.69	13.08	21.20
(s.e.)	(1.455)	(1.455)	(1.737)	(0.887)	(1.090)	(1.133)	(0.153)	(2.146)	(1.341)	(0.809)	(2.051)
Unweighted Ns	2,637	2,637	2,688	2,688	2,688	2,688	2,688	2,659	2,659	2,659	2,659
Private, nonprofit 4-year	42.97	57.03	79.74	8.19	8.46	2.65	0.96	34.68	22.53	16.57	26.21
(s.e.)	(2.452)	(2.452)	(2.636)	(1.815)	(2.042)	(0.373)	(0.324)	(2.460)	(1.263)	(1.170)	(2.294)
Unweighted Ns	3,070	3,070	3,177	3,177	3,177	3,177	3,177	3,077	3,077	3,077	3,077
Public 2- to 3-year	43.46	56.54	75.33	9.68	8.65	5.32	1.03	28.61	15.06	19.26	37.07
(s.e.)	(0.859)	(0.859)	(1.883)	(1.319)	(0.970)	(0.638)	(0.179)	(1.102)	(0.610)	(0.632)	(1.205)
Unweighted Ns	5,197	5,197	5,300	5,300	5,300	5,300	5,300	5,255	5,255	5,255	5,255
Public vocational–technical	52.62	47.38	80.37	12.84	5.59	0.76	0.44	26.89	13.11	18.14	41.86
(s.e.)	(5.726)	(5.726)	(3.350)	(2.963)	(1.092)	(0.295)	(0.249)	(3.200)	(2.025)	(1.971)	(5.485)
Unweighted Ns	918	918	947	947	947	947	947	927	927	927	927
Private proprietary	37.05	62.95	56.76	24.05	15.34	2.82	1.03	31.33	18.35	22.69	27.63
(s.e.)	(2.519)	(2.519)	(2.674)	(2.322)	(2.191)	(0.429)	(0.254)	(1.352)	(0.704)	(0.791)	(1.047)
Unweighted Ns	6,219	6,219	7,070	7,070	7,070	7,070	7,070	6,265	6,265	6,265	6,265
Private, nonprofit less-than-4-year	40.74	59.26	69.32	12.04	16.00	2.24	0.39	38.89	16.89	19.42	24.80
(s.e.)	(3.085)	(3.085)	(5.706)	(3.172)	(5.837)	(0.494)	(0.130)	(3.348)	(1.437)	(2.324)	(2.345)
Unweighted Ns	1,974	1,974	2,055	2,055	2,055	2,055	2,055	1,997	1,997	1,997	1,997

Table 90—Percentage of nonbaccalaureate students attending postsecondary institutions by sex, race–ethnicity, and age, by type of program and institution: 1989-90[1]—Continued

Program and institution type	Sex		Race–ethnicity					Age			
	Male	Female	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian	Native American	20 years or under	21–23 years	24–29 years	30 years or over
Public 4-year											
Academic	38.93	61.07	82.75	6.58	5.59	4.52	0.56	38.76	27.28	13.34	20.62
(s.e.)	(2.159)	(2.159)	(2.073)	(1.152)	(1.175)	(1.487)	(0.257)	(2.711)	(2.230)	(1.298)	(2.495)
Unweighted Ns	866	866	882	882	882	882	882	873	873	873	873
Vocational	52.62	47.38	78.95	9.00	6.38	4.94	0.73	43.88	26.20	13.07	16.85
(s.e.)	(1.848)	(1.848)	(2.416)	(1.308)	(1.536)	(1.150)	(0.244)	(2.781)	(1.579)	(1.125)	(2.113)
Unweighted Ns	962	962	974	974	974	974	974	971	971	971	971
Other	43.94	56.06	80.96	8.52	5.56	4.15	0.82	43.38	17.28	12.82	26.52
(s.e.)	(2.233)	(2.233)	(2.199)	(1.266)	(1.316)	(1.431)	(0.323)	(3.852)	(1.733)	(1.437)	(3.318)
Unweighted Ns	809	809	832	832	832	832	832	815	815	815	815
Private, nonprofit 4-year											
Academic	42.65	57.35	77.82	7.26	10.55	2.86	1.51	39.46	24.96	12.44	23.14
(s.e.)	(4.670)	(4.670)	(3.935)	(2.574)	(2.622)	(0.736)	(0.921)	(4.341)	(2.499)	(1.869)	(3.498)
Unweighted Ns	929	929	963	963	963	963	963	935	935	935	935
Vocational	44.38	55.62	78.57	10.02	8.12	2.49	0.79	30.55	21.75	20.77	26.93
(s.e.)	(3.476)	(3.476)	(2.818)	(2.294)	(1.884)	(0.486)	(0.366)	(2.849)	(1.958)	(1.611)	(2.899)
Unweighted Ns	1,254	1,254	1,296	1,296	1,296	1,296	1,296	1,260	1,260	1,260	1,260
Other	41.47	58.53	83.05	6.73	6.89	2.67	0.66	35.36	21.18	15.18	28.28
(s.e.)	(2.727)	(2.727)	(2.839)	(1.201)	(2.527)	(0.609)	(0.236)	(3.706)	(1.808)	(1.608)	(2.986)
Unweighted Ns	887	887	918	918	918	918	918	882	882	882	882
Public 2- to 3-year											
Academic	39.68	60.32	76.37	8.33	9.76	4.38	1.16	33.22	16.11	17.05	33.61
(s.e.)	(1.684)	(1.684)	(2.536)	(1.455)	(1.495)	(0.879)	(0.403)	(1.547)	(1.270)	(1.135)	(1.631)
Unweighted Ns	1,281	1,281	1,297	1,297	1,297	1,297	1,297	1,288	1,288	1,288	1,288
Vocational	46.95	53.05	74.75	11.47	7.59	5.31	0.90	27.00	15.66	20.82	36.51
(s.e.)	(1.095)	(1.095)	(2.047)	(1.564)	(1.088)	(0.689)	(0.207)	(1.313)	(0.804)	(0.920)	(1.363)
Unweighted Ns	2,491	2,491	2,549	2,549	2,549	2,549	2,549	2,524	2,524	2,524	2,524
Other	41.31	58.69	75.34	8.02	9.37	6.16	1.11	27.07	13.18	18.75	41.00
(s.e.)	(1.709)	(1.709)	(2.797)	(1.487)	(1.455)	(1.203)	(0.312)	(2.030)	(1.015)	(1.062)	(2.524)
Unweighted Ns	1,425	1,425	1,454	1,454	1,454	1,454	1,454	1,443	1,443	1,443	1,443

Table 90—Percentage of nonbaccalaureate students attending postsecondary institutions by sex, race-ethnicity, and age, by type of program and institution: 1989-90[1]—Continued

Program and institution type	Sex		Race–ethnicity					Age			
	Male	Female	White, non-Hispanic	Black, non-Hispanic	Hispanic	Asian	Native American	20 years or under	21–23 years	24–29 years	30 years or over
Private, nonprofit less-than-4-year											
Academic	41.60	58.40	83.42	5.48	7.44	3.40	0.27	46.62	18.04	15.33	20.01
(s.e.)	(3.125)	(3.125)	(4.038)	(1.971)	(2.931)	(1.492)	(0.179)	(5.415)	(3.024)	(3.294)	(4.059)
Unweighted Ns	474	474	495	495	495	495	495	483	483	483	483
Vocational	40.30	59.70	62.73	14.77	20.16	1.86	0.48	35.15	15.68	22.51	26.66
(s.e.)	(4.327)	(4.327)	(7.044)	(4.242)	(7.852)	(0.437)	(0.184)	(3.551)	(1.627)	(2.903)	(2.802)
Unweighted Ns	1,320	1,320	1,363	1,363	1,363	1,363	1,363	1,330	1,330	1,330	1,330
Other	41.52	58.48	77.95	10.14	9.88	1.95	0.09	43.42	21.59	10.18	24.81
(s.e.)	(5.107)	(5.107)	(6.404)	(4.526)	(3.316)	(0.950)	(0.093)	(4.275)	(2.919)	(2.415)	(4.401)
Unweighted Ns	180	180	197	197	197	197	197	184	184	184	184

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989-90, 43.04 percent were male.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Estimates may not sum within column groupings to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 91—Percentage of nonbaccalaureate students attending postsecondary institutions by dependency status and working for pay, by type of program and institution: 1989–90[1]

Program and institution type	Dependency status		Working for pay			
	Dependent	Independent	Fall	Spring	Both	Neither
Total[2]	36.68	63.32	5.68	3.33	70.66	20.33
(s.e.)	(0.969)	(0.969)	(0.281)	(0.213)	(0.688)	(0.555)
Unweighted Ns	21,130	21,130	16,653	16,653	16,653	16,653
Program type[3]						
Academic	43.16	56.84	5.98	3.25	70.11	20.67
(s.e.)	(1.424)	(1.424)	(0.530)	(0.357)	(1.073)	(0.980)
Unweighted Ns	4,480	4,480	3,693	3,693	3,693	3,693
Vocational	33.63	66.37	5.65	3.79	69.69	20.86
(s.e.)	(1.001)	(1.001)	(0.355)	(0.279)	(0.799)	(0.653)
Unweighted Ns	13,120	13,120	9,868	9,868	9,868	9,868
Other	36.66	63.34	5.45	2.54	72.99	19.02
(s.e.)	(2.104)	(2.104)	(0.571)	(0.454)	(1.406)	(1.156)
Unweighted Ns	3,530	3,530	3,092	3,092	3,092	3,092
Institution type						
Public 4-year	58.74	41.26	10.91	3.59	68.84	16.66
(s.e.)	(2.532)	(2.532)	(0.840)	(0.514)	(1.295)	(0.836)
Unweighted Ns	2,682	2,682	2,339	2,339	2,339	2,339
Private, nonprofit 4-year	50.72	49.28	8.61	2.97	72.29	16.12
(s.e.)	(2.956)	(2.956)	(0.836)	(0.393)	(1.350)	(1.256)
Unweighted Ns	3,141	3,141	2,596	2,596	2,596	2,596
Public 2- to 3-year	34.29	65.71	4.39	2.61	73.59	19.41
(s.e.)	(1.195)	(1.195)	(0.320)	(0.266)	(0.868)	(0.730)
Unweighted Ns	5,288	5,288	4,839	4,839	4,839	4,839
Public vocational-technical	26.44	73.56	4.12	6.24	59.28	30.35
(s.e.)	(3.137)	(3.137)	(1.181)	(1.372)	(3.754)	(2.801)
Unweighted Ns	940	940	789	789	789	789
Private proprietary	27.25	72.75	7.83	7.71	54.48	29.98
(s.e.)	(1.417)	(1.417)	(0.600)	(0.552)	(1.473)	(1.295)
Unweighted Ns	7,032	7,032	4,524	4,524	4,524	4,524
Private, nonprofit less-than-4-year	43.36	56.64	9.44	4.41	62.04	24.11
(s.e.)	(3.541)	(3.541)	(1.166)	(0.797)	(2.734)	(2.269)
Unweighted Ns	2,047	2,047	1,566	1,566	1,566	1,566
Public 4-year						
Academic	59.47	40.53	11.48	4.25	65.32	18.95
(s.e.)	(3.289)	(3.289)	(1.305)	(0.833)	(1.941)	(1.347)
Unweighted Ns	881	881	764	764	764	764
Vocational	62.11	37.89	10.72	3.59	68.85	16.84
(s.e.)	(2.944)	(2.944)	(1.398)	(0.986)	(2.405)	(1.548)
Unweighted Ns	974	974	842	842	842	842
Other	54.38	45.62	10.55	2.93	72.34	14.18
(s.e.)	(3.844)	(3.844)	(1.234)	(0.637)	(1.641)	(1.272)
Unweighted Ns	827	827	733	733	733	733

Table 91—Percentage of nonbaccalaureate students attending postsecondary institutions by dependency status and working for pay, by type of program and institution: 1989-90[1]—Continued

Program and institution type	Dependency status		Working for pay			
	Dependent	Independent	Fall	Spring	Both	Neither
Private, nonprofit 4-year						
Academic	57.92	42.08	9.74	3.40	68.10	18.76
(s.e.)	(4.815)	(4.815)	(1.404)	(0.744)	(2.435)	(2.763)
Unweighted Ns	956	956	762	762	762	762
Vocational	45.81	54.19	7.92	2.67	74.45	14.95
(s.e.)	(3.446)	(3.446)	(1.078)	(0.593)	(1.934)	(1.589)
Unweighted Ns	1,286	1,286	1,074	1,074	1,074	1,074
Other	50.07	49.93	8.45	2.96	73.41	15.18
(s.e.)	(3.653)	(3.653)	(1.212)	(0.637)	(2.021)	(1.502)
Unweighted Ns	899	899	760	760	760	760
Private, nonprofit less-than-4-year						
Academic	53.45	46.55	13.06	6.01	59.39	21.53
(s.e.)	(4.943)	(4.943)	(1.778)	(1.572)	(3.299)	(3.042)
Unweighted Ns	493	493	372	372	372	372
Vocational	38.64	61.36	8.24	4.05	63.09	24.63
(s.e.)	(3.836)	(3.836)	(1.375)	(0.878)	(3.706)	(3.182)
Unweighted Ns	1,357	1,357	1,041	1,041	1,041	1,041
Other	49.02	50.98	8.38	2.88	61.80	26.94
(s.e.)	(5.260)	(5.260)	(2.301)	(1.944)	(4.074)	(2.674)
Unweighted Ns	197	197	153	153	153	153
Public 2- to 3-year						
Academic	39.74	60.26	4.52	2.53	72.19	20.75
(s.e.)	(1.712)	(1.712)	(0.641)	(0.422)	(1.315)	(1.268)
Unweighted Ns	1,294	1,294	1,191	1,191	1,191	1,191
Vocational	32.29	67.71	4.31	2.76	74.54	18.38
(s.e.)	(1.299)	(1.299)	(0.441)	(0.347)	(0.974)	(0.862)
Unweighted Ns	2,544	2,544	2,296	2,296	2,296	2,296
Other	32.67	67.33	4.41	2.43	73.32	19.84
(s.e.)	(2.369)	(2.369)	(0.650)	(0.555)	(1.724)	(1.424)
Unweighted Ns	1,450	1,450	1,352	1,352	1,352	1,352

First row, first column reads: Of all nonbaccaluareate students attending postsecondary institutions in 1989-90, 36.68 percent were financially dependent.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self- improvement).

NOTE: Estimates may not sum within column groupings to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 92—Percentage of nonbaccalaureate students attending postsecondary institutions by financial aid status and family background, by type of program and institution: 1989–90[1]

Program and institution type	Financial aid status		Family background,[2] dependent students				Family background,[2] independent students			
	Aided	Not aided	Lowest quartile	Second quartile	Third quartile	Highest quartile	Lowest quartile	Second quartile	Third quartile	Highest quartile
Total[3]	38.29	61.71	28.36	27.59	25.21	18.84	29.08	27.41	22.62	20.89
(s.e.)	(1.093)	(1.093)	(1.004)	(0.845)	(0.786)	(0.827)	(0.959)	(0.833)	(0.667)	(0.903)
Unweighted Ns	21,237	21,237	8,092	8,092	8,092	8,092	7,659	7,659	7,659	7,659
Program type[4]										
Academic	33.95	66.05	25.28	26.63	26.81	21.28	25.69	25.83	24.93	23.55
(s.e.)	(1.516)	(1.516)	(1.570)	(1.521)	(1.530)	(1.494)	(1.640)	(1.477)	(1.513)	(1.728)
Unweighted Ns	4,495	4,495	2,144	2,144	2,144	2,144	1,468	1,468	1,468	1,468
Vocational	46.46	53.54	33.06	30.26	22.42	14.26	31.75	28.91	21.03	18.32
(s.e.)	(1.345)	(1.345)	(1.248)	(1.188)	(0.946)	(0.999)	(1.239)	(1.080)	(0.919)	(1.127)
Unweighted Ns	13,182	13,182	4,437	4,437	4,437	4,437	4,873	4,873	4,873	4,873
Other	25.56	74.44	22.98	23.61	28.67	24.74	26.76	25.83	23.73	23.68
(s.e.)	(1.371)	(1.371)	(2.136)	(1.582)	(1.647)	(1.754)	(1.755)	(1.860)	(1.408)	(1.507)
Unweighted Ns	3,560	3,560	1,511	1,511	1,511	1,511	1,318	1,318	1,318	1,318
Institution type										
Public 4-year	38.77	61.23	20.18	24.47	26.54	28.81	20.18	26.10	24.90	28.82
(s.e.)	(1.451)	(1.451)	(1.376)	(1.351)	(1.392)	(1.703)	(1.537)	(1.526)	(1.308)	(1.687)
Unweighted Ns	2,688	2,688	1,545	1,545	1,545	1,545	802	802	802	802
Private, nonprofit 4-year	56.43	43.57	25.36	23.43	22.11	29.10	22.87	28.70	21.88	26.55
(s.e.)	(2.602)	(2.602)	(2.866)	(1.547)	(1.541)	(2.667)	(2.080)	(1.428)	(1.522)	(1.941)
Unweighted Ns	3,177	3,177	1,648	1,648	1,648	1,648	985	985	985	985
Public 2- to 3-year	27.62	72.38	25.46	29.57	27.22	17.75	28.38	27.13	23.18	21.31
(s.e.)	(1.253)	(1.253)	(1.361)	(1.262)	(1.147)	(1.113)	(1.228)	(1.089)	(0.859)	(1.172)
Unweighted Ns	5,300	5,300	1,797	1,797	1,797	1,797	2,398	2,398	2,398	2,398
Public vocational-technical	37.92	62.08	48.19	25.00	20.28	6.54	46.72	23.39	17.29	12.60
(s.e.)	(4.587)	(4.587)	(5.094)	(4.666)	(5.059)	(2.414)	(2.954)	(2.930)	(2.290)	(2.607)
Unweighted Ns	947	947	198	198	198	198	457	457	457	457
Private proprietary	80.66	19.34	57.08	23.40	14.19	5.34	38.35	30.70	18.64	12.31
(s.e.)	(1.677)	(1.677)	(2.375)	(1.636)	(1.297)	(0.776)	(1.648)	(1.256)	(1.055)	(1.168)
Unweighted Ns	7,070	7,070	1,928	1,928	1,928	1,928	2,405	2,405	2,405	2,405
Private, nonprofit less-than-4-year	59.27	40.73	34.53	27.46	21.65	16.36	27.95	28.40	22.07	21.58
(s.e.)	(3.425)	(3.425)	(3.728)	(2.217)	(2.057)	(2.405)	(3.238)	(2.580)	(2.693)	(2.558)
Unweighted Ns	2,055	2,055	976	976	976	976	612	612	612	612

Table 92—Percentage of nonbaccalaureate students attending postsecondary institutions by financial aid status and family background, by type of program and institution: 1989-90[1]—Continued

Program and institution type	Financial aid status		Family background,[2] dependent students				Family background,[2] independent students			
	Aided	Not aided	Lowest quartile	Second quartile	Third quartile	Highest quartile	Lowest quartile	Second quartile	Third quartile	Highest quartile
Public 4-year										
Academic	38.07	61.93	21.03	21.40	29.60	27.97	16.67	24.87	29.35	29.10
(s.e.)	(1.766)	(1.766)	(1.966)	(1.951)	(2.188)	(2.201)	(2.538)	(2.953)	(2.622)	(2.933)
Unweighted Ns	882	882	514	514	514	514	262	262	262	262
Vocational	47.91	52.09	19.46	28.58	25.12	26.83	23.45	27.01	21.86	27.68
(s.e.)	(1.908)	(1.908)	(1.817)	(2.108)	(2.039)	(2.412)	(2.558)	(2.820)	(2.432)	(3.037)
Unweighted Ns	974	974	588	588	588	588	274	274	274	274
Other	29.72	70.28	20.13	22.82	24.87	32.19	20.49	26.40	23.53	29.58
(s.e.)	(2.017)	(2.017)	(2.008)	(2.101)	(2.060)	(2.774)	(2.343)	(2.293)	(2.523)	(3.375)
Unweighted Ns	832	832	443	443	443	443	266	266	266	266
Private, nonprofit 4-year										
Academic	59.17	40.83	27.70	21.27	18.28	32.74	24.05	29.43	22.04	24.48
(s.e.)	(4.493)	(4.493)	(5.105)	(2.503)	(2.359)	(5.537)	(3.409)	(3.973)	(2.999)	(4.546)
Unweighted Ns	963	963	569	569	569	569	234	234	234	234
Vocational	59.71	40.29	24.89	27.50	22.54	25.07	24.16	29.08	20.81	25.95
(s.e.)	(2.499)	(2.499)	(2.701)	(2.027)	(2.147)	(1.997)	(2.936)	(2.162)	(1.985)	(2.342)
Unweighted Ns	1,296	1,296	616	616	616	616	453	453	453	453
Other	49.63	50.37	23.30	21.04	25.90	29.77	20.30	27.66	23.21	28.83
(s.e.)	(4.021)	(4.021)	(3.919)	(2.109)	(2.377)	(2.736)	(3.126)	(2.283)	(2.401)	(2.761)
Unweighted Ns	918	918	463	463	463	463	298	298	298	298
Private, nonprofit less-than-4-year										
Academic	52.99	47.01	28.81	22.88	23.14	25.18	21.72	25.22	23.90	29.17
(s.e.)	(4.940)	(4.940)	(5.221)	(3.647)	(3.794)	(3.247)	(3.883)	(5.353)	(5.816)	(6.188)
Unweighted Ns	495	495	276	276	276	276	112	112	112	112
Vocational	62.62	37.38	38.80	29.69	19.32	12.19	30.21	29.12	21.27	19.39
(s.e.)	(3.851)	(3.851)	(4.325)	(2.713)	(2.293)	(2.498)	(4.023)	(2.949)	(3.009)	(2.799)
Unweighted Ns	1,363	1,363	597	597	597	597	457	457	457	457
Other	—	—	—	—	—	—	—	—	—	—
(s.e.)	—	—	—	—	—	—	—	—	—	—
Unweighted Ns	—	—	—	—	—	—	—	—	—	—

Table 92—Percentage of nonbaccalaureate students attending postsecondary institutions by financial aid status and family background, by type of program and institution: 1989–90[1]—Continued

Program and institution type	Financial aid status		Family background,[2] dependent students				Family background,[2] independent students			
	Aided	Not aided	Lowest quartile	Second quartile	Third quartile	Highest quartile	Lowest quartile	Second quartile	Third quartile	Highest quartile
Public 2- to 3-year										
Academic	26.21	73.79	23.97	29.30	27.93	18.79	26.64	25.57	24.93	22.86
(s.e.)	(1.869)	(1.869)	(2.181)	(2.194)	(2.226)	(2.003)	(2.037)	(1.818)	(1.886)	(2.149)
Unweighted Ns	1,297	1,297	516	516	516	516	555	555	555	555
Vocational	31.95	68.05	27.87	33.19	24.83	14.10	29.55	28.85	21.98	19.61
(s.e.)	(1.437)	(1.437)	(1.624)	(1.887)	(1.430)	(1.502)	(1.715)	(1.514)	(1.291)	(1.578)
Unweighted Ns	2,549	2,549	810	810	810	810	1,185	1,185	1,185	1,185
Other	22.00	78.00	23.27	24.15	30.22	22.36	27.91	25.62	23.68	22.79
(s.e.)	(1.726)	(1.726)	(2.952)	(2.166)	(2.282)	(2.350)	(2.111)	(2.203)	(1.646)	(1.746)
Unweighted Ns	1,454	1,454	471	471	471	471	658	658	658	658

First row, first column reads: Of all nonbaccaluareate students attending postsecondary institutions in 1989–90, 38.29 percent received financial aid.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Family background is a composite variable created from data on family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

[3] Included in the total are students who may be missing data on particular row variables.

[4] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Estimates may not sum within column groupings to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 93—Percentage of nonbaccalaureate students attending postsecondary institutions by disability status and marital status, by type of program and institution: 1989-90[1]

Program and institution type	Disability status						Marital status			
	Disabled									
	Total disabled	Physically impaired	Learning disabled	Multiple disabilities	Not disabled	Missing information	Not married, no dependents	Not married, with dependents	Married, no dependents	Married, with dependents
Total[2]	7.53	5.12	1.16	1.24	54.39	38.08	57.59	7.38	13.89	21.13
(s.e.)	(0.303)	(0.231)	(0.124)	(0.124)	(0.668)	(0.640)	(0.950)	(0.376)	(0.419)	(0.647)
Unweighted Ns	21,237	21,237	21,237	21,237	21,237	21,237	16,376	16,376	16,376	16,376
Program type[3]										
Academic	7.30	5.20	0.83	1.27	56.32	36.39	63.57	5.90	11.53	19.00
(s.e.)	(0.612)	(0.506)	(0.184)	(0.283)	(1.215)	(1.204)	(1.375)	(0.576)	(0.667)	(1.027)
Unweighted Ns	4,495	4,495	4,495	4,495	4,495	4,495	3,633	3,633	3,633	3,633
Vocational	7.23	4.87	1.19	1.17	52.67	40.10	54.87	8.86	14.58	21.68
(s.e.)	(0.381)	(0.288)	(0.186)	(0.140)	(0.903)	(0.919)	(1.057)	(0.468)	(0.587)	(0.767)
Unweighted Ns	13,182	13,182	13,182	13,182	13,182	13,182	9,730	9,730	9,730	9,730
Other	8.39	5.58	1.44	1.37	56.06	35.55	57.01	5.99	14.85	22.14
(s.e.)	(0.700)	(0.522)	(0.279)	(0.257)	(1.269)	(1.198)	(1.962)	(0.719)	(0.769)	(1.401)
Unweighted Ns	3,560	3,560	3,560	3,560	3,560	3,560	3,013	3,013	3,013	3,013
Institution type										
Public 4-year	5.19	3.60	0.79	0.80	60.21	35.61	72.94	3.96	10.05	13.05
(s.e.)	(0.435)	(0.347)	(0.185)	(0.161)	(1.090)	(1.121)	(2.294)	(0.440)	(0.902)	(1.604)
Unweighted Ns	2,688	2,688	2,688	2,688	2,688	2,688	2,312	2,312	2,312	2,312
Private, nonprofit 4-year	5.10	3.47	0.90	0.73	54.33	40.57	66.98	4.11	12.47	16.44
(s.e.)	(0.546)	(0.370)	(0.241)	(0.189)	(1.683)	(1.795)	(2.606)	(0.759)	(0.959)	(1.634)
Unweighted Ns	3,177	3,177	3,177	3,177	3,177	3,177	2,543	2,543	2,543	2,543
Public 2- to 3-year	8.17	5.55	1.33	1.29	57.81	34.01	55.50	6.96	14.68	22.86
(s.e.)	(0.424)	(0.325)	(0.175)	(0.178)	(0.831)	(0.726)	(1.189)	(0.491)	(0.545)	(0.810)
Unweighted Ns	5,300	5,300	5,300	5,300	5,300	5,300	4,704	4,704	4,704	4,704
Public vocational-technical	10.38	6.89	1.47	2.02	49.81	39.81	42.78	8.29	19.71	29.21
(s.e.)	(1.978)	(1.562)	(0.999)	(0.527)	(2.578)	(3.008)	(3.637)	(0.847)	(2.154)	(3.811)
Unweighted Ns	947	947	947	947	947	947	770	770	770	770
Private proprietary	6.74	4.58	0.68	1.48	35.68	57.58	3.36	15.53	11.93	19.19
(s.e.)	(0.464)	(0.327)	(0.129)	(0.201)	(1.545)	(1.738)	(1.410)	(0.914)	(0.698)	(0.920)
Unweighted Ns	7,070	7,070	7,070	7,070	7,070	7,070	4,494	4,494	4,494	4,494
Private, nonprofit less-than-4-year	6.18	4.42	0.95	0.82	44.29	49.53	66.44	7.47	12.41	13.69
(s.e.)	(0.769)	(0.611)	(0.323)	(0.189)	(2.550)	(2.918)	(2.808)	(1.529)	(1.438)	(1.878)
Unweighted Ns	2,055	2,055	2,055	2,055	2,055	2,055	1,553	1,553	1,553	1,553

Table 93—Percentage of nonbaccalaureate students attending postsecondary institutions by disability status and marital status, by type of program and institution: 1989-90—Continued[1]

Program and institution type	Disability status						Marital status			
	Disabled									
	Total disabled	Physically impaired	Learning disabled	Multiple disabilities	Not disabled	Missing information	Not married, no dependents	Not married, with dependents	Married, no dependents	Married, with dependents
Public 4-year										
Academic	5.86	4.75	0.65	0.46	60.93	33.22	74.29	2.65	9.01	14.06
(s.e.)	(0.821)	(0.736)	(0.289)	0.201	(2.248)	(2.039)	(2.625)	(0.581)	(1.187)	(2.090)
Unweighted Ns	882	882	882	882	882	882	756	756	756	756
Vocational	4.71	3.22	0.58	0.90	61.67	33.63	75.81	4.61	9.49	10.09
(s.e.)	(0.712)	(0.568)	(0.245)	(0.279	(1.674)	(1.665)	(2.423)	(0.793)	(1.266)	(1.386)
Unweighted Ns	974	974	974	974	974	974	835	835	835	835
Other	5.03	2.83	1.15	1.04	57.92	39.05	68.54	4.56	11.69	15.20
(s.e.)	(0.819)	(0.535)	(0.352)	(0.344)	(1.631)	(1.861)	(4.006)	(0.796)	(1.630)	(2.726)
Unweighted Ns	832	832	832	832	832	832	721	721	721	721
Private, nonprofit 4-year										
Academic	5.76	3.28	1.57	0.90	53.76	40.49	71.78	3.79	10.57	13.85
(s.e.)	(1.025)	(0.651)	(0.715)	(0.363)	(3.617)	(3.799)	(4.087)	(1.040)	(1.555)	(2.414)
Unweighted Ns	963	963	963	963	963	963	748	748	748	748
Vocational	4.33	3.48	0.38	0.47	55.44	40.23	66.13	4.97	12.00	16.89
(s.e.)	(0.764)	(0.618)	(0.181)	(0.213)	(1.820)	(1.862)	(3.276)	(1.387)	(1.072)	(2.242)
Unweighted Ns	1,296	1,296	1,296	1,296	1,296	1,296	1,047	1,047	1,047	1,047
Other	5.46	3.63	0.92	0.91	53.47	41.07	63.64	3.31	14.80	18.24
(s.e.)	(0.991)	(0.705)	(0.290)	(0.414)	(2.340)	(2.430)	(3.119)	(0.662)	(1.685)	(2.123)
Unweighted Ns	918	918	918	918	918	918	748	748	748	748
Private, nonprofit less-than-4-year										
Academic	9.14	6.14	2.29	0.72	46.23	44.63	72.04	4.29	12.12	11.55
(s.e.)	(1.682)	(1.432)	(1.272)	(0.278)	(3.963)	(3.911)	(4.102)	(1.769)	(3.164)	(1.831)
Unweighted Ns	495	495	495	495	495	495	370	370	370	370
Vocational	5.00	3.81	0.44	0.75	44.44	50.56	63.55	9.37	12.43	14.65
(s.e.)	(0.832)	(0.763)	(0.164)	(0.245)	(3.219)	(3.616)	(3.587)	(2.032)	(1.751)	(2.613)
Unweighted Ns	1,363	1,363	1,363	1,363	1,363	1,363	1,031	1,031	1,031	1,031
Other	6.75	4.30	1.01	1.44	39.01	54.24	71.15	3.18	12.96	12.70
(s.e.)	(2.184)	(1.646)	(0.481)	(0.703)	(5.546)	(4.945)	(5.354)	(1.903)	(4.076)	(3.905)
Unweighted Ns	197	197	197	197	197	197	152	152	152	152

Table 93—Percentage of nonbaccalaureate students attending postsecondary institutions by disability status and marital status, by type of program and institution: 1989-90—Continued[1]

	Disability status						Marital status			
	Disabled									
Program and institution type	Total disabled	Physically impaired	Learning disabled	Multiple disabilities	Not disabled	Missing information	Not married, no dependents	Not married, with dependents	Married, no dependents	Married, with dependents
Public 2- to 3-year										
Academic	7.76	5.60	0.73	1.43	57.81	34.43	61.20	6.27	11.90	20.62
(s.e.)	(0.849)	(0.701)	(0.241)	(0.393)	(1.578)	(1.568)	(1.745)	(0.764)	(0.845)	(1.313)
Unweighted Ns	1,297	1,297	1,297	1,297	1,297	1,297	1,163	1,163	1,163	1,163
Vocational	7.78	5.13	1.54	1.11	58.57	33.65	52.91	7.69	15.86	23.55
(s.e.)	(0.583)	(0.442)	(0.295)	(0.216)	(1.063)	(1.022)	(1.407)	(0.611)	(0.840)	(1.021)
Unweighted Ns	2,549	2,549	2,549	2,549	2,549	2,549	2,239	2,239	2,239	2,239
Other	9.16	6.18	1.54	1.45	56.61	34.23	54.53	6.42	15.28	23.77
(s.e.)	(0.858)	(0.641)	(0.349)	(0.320)	(1.584)	(1.473)	(2.246)	(0.877)	(0.908)	(1.630)
Unweighted Ns	1,454	1,454	1,454	1,454	1,454	1,454	1,302	1,302	1,302	1,302

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989-90, 7.53 percent were disabled.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Included in the total are students who may be missing data on particular row variables.

[3] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Estimates may not sum within column groupings to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 94—Percentage of nonbaccalaureate students attending postsecondary institutions who received financial aid and the percentage of aided students by financial aid source, by type of program and institution: 1989–90[1]

		Students who received financial aid										
		Federal aid									
			Loans			Grants					
Program and institution type	Any financial aid	Any federal aid	Any federal loan	Federal Stafford loan	Federal Perkins loan	Any federal grant	Federal Pell grant	Federal SEOG grant[2]	Federal CWS grant[3]	Any state aid[4]	Any institutional aid[4]
Total[5]	38.29	67.55	36.86	33.49	5.63	52.56	50.54	9.10	5.00	23.30	26.70
(s.e.)	(1.093)	(1.353)	(1.728)	(1.671)	(0.640)	(1.294)	(1.304)	(0.663)	(0.433)	(1.292)	(1.152)
Unweighted Ns	21,237	12,824	12,824	12,824	12,824	12,824	12,824	12,824	12,824	12,824	12,824
Program type[6]											
Academic	33.95	65.60	32.99	29.14	5.61	51.93	49.93	8.19	7.02	25.99	29.68
(s.e.)	(1.516)	(1.888)	(2.101)	(1.980)	(0.757)	(2.006)	(2.023)	(1.035)	(0.956)	(2.155)	(1.824)
Unweighted Ns	4,495	2,417	2,417	2,417	2,417	2,417	2,417	2,417	2,417	2,417	2,417
Vocational	46.46	73.22	42.63	39.27	5.88	56.54	54.29	10.45	3.90	21.90	24.57
(s.e.)	(1.345)	(1.472)	(2.163)	(2.113)	(0.860)	(1.430)	(1.452)	(0.832)	(0.369)	(1.395)	(1.200)
Unweighted Ns	13,182	9,019	9,019	9,019	9,019	9,019	9,019	9,019	9,019	9,019	9,019
Other	25.56	48.64	20.14	17.29	4.69	38.37	37.13	5.16	6.54	23.77	30.86
(s.e.)	(1.371)	(2.649)	(1.877)	(1.724)	(0.998)	(2.545)	(2.578)	(0.816)	(1.007)	(2.436)	(2.959)
Unweighted Ns	3,560	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388	1,388
Institution type											
Public 4-year	38.77	65.56	40.60	33.37	11.59	46.98	45.52	9.73	8.34	24.51	32.40
(s.e.)	(1.451)	(1.954)	(2.783)	(3.166)	(1.466)	(2.045)	(2.119)	(1.211)	(1.025)	(2.259)	(1.955)
Unweighted Ns	2,688	1,165	1,165	1,165	1,165	1,165	1,165	1,165	1,165	1,165	1,165
Private, nonprofit 4-year	56.43	60.69	43.12	36.90	14.68	41.19	37.71	13.44	16.02	33.33	52.89
(s.e.)	(2.602)	(3.094)	(3.131)	(3.314)	(1.766)	(3.497)	(3.290)	(2.459)	(2.439)	(2.998)	(4.095)
Unweighted Ns	3,177	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960
Public 2- to 3-year	27.62	54.67	15.94	13.87	2.66	47.52	45.90	7.35	4.87	28.57	23.97
(s.e.)	(1.253)	(2.030)	(1.325)	(1.189)	(0.681)	(2.044)	(2.071)	(0.929)	(0.662)	(2.087)	(1.921)
Unweighted Ns	5,300	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848	1,848
Public vocational–technical	37.92	52.22	20.51	19.96	0.51	37.56	33.85	1.61	1.57	16.90	13.46
(s.e.)	(4.587)	(10.475)	(6.891)	(6.649)	(0.320)	(7.481)	(6.769)	(0.688)	(0.757)	(3.696)	(2.051)
Unweighted Ns	947	512	512	512	512	512	512	512	512	512	512
Private proprietary	80.66	92.91	71.29	67.44	6.66	67.48	65.13	11.15	0.94	10.87	23.19
(s.e.)	(1.677)	(0.891)	(2.713)	(2.765)	(1.694)	(1.751)	(1.837)	(1.411)	(0.380)	(1.622)	(1.862)
Unweighted Ns	7,070	6,002	6,002	6,002	6,002	6,002	6,002	6,002	6,002	6,002	6,002
Private, nonprofit less-than-4-year	59.27	69.31	34.66	32.25	5.94	50.56	48.02	10.80	9.38	30.45	31.79
(s.e.)	(3.425)	(3.964)	(4.855)	(4.618)	(1.544)	(4.569)	(4.474)	(2.180)	(2.180)	(3.721)	(4.221)
Unweighted Ns	2,055	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337

Table 94—Percentage of nonbaccalaureate students attending postsecondary institutions who received financial aid and the percentage of aided students by financial aid source, by type of program and institution: 1989-90[1]—Continued

		Students who received financial aid										
		Federal aid										
			Loans			Grants						
Program and institution type	Any financial aid	Any federal aid	Any federal loan	Federal Stafford loan	Federal Perkins loan	Any federal grant	Federal Pell grant	Federal SEOG grant[2]	Federal CWS grant[3]	Any state aid[4]	Any institutional aid[4]
Public 4-year											
Academic	38.07	67.19	42.14	35.20	12.59	49.59	47.01	9.90	9.27	25.19	34.59
(s.e.)	(1.766)	(2.881)	(3.129)	(3.354)	(2.144)	(2.681)	(2.835)	(1.838)	(1.409)	(3.328)	(2.642)
Unweighted Ns	882	372	372	372	372	372	372	372	372	372	372
Vocational	47.91	70.83	45.90	37.45	12.61	51.13	49.66	10.85	7.47	27.62	31.41
(s.e.)	(1.908)	(2.595)	(3.945)	(4.588)	(2.062)	(2.827)	(2.824)	(1.667)	(1.206)	(3.276)	(2.511)
Unweighted Ns	974	517	517	517	517	517	517	517	517	517	517
Other	29.72	54.38	29.50	24.00	8.57	36.47	36.47	7.56	8.61	18.30	31.27
(s.e.)	(2.017)	(3.965)	(3.280)	(3.309)	(2.118)	(3.474)	(3.474)	(1.721)	(2.688)	(2.447)	(3.484)
Unweighted Ns	832	276	276	276	276	276	276	276	276	276	276
Private, nonprofit 4-year											
Academic	59.17	68.14	47.51	39.62	14.57	49.92	45.79	17.12	22.57	33.40	58.70
(s.e.)	(4.493)	(4.826)	(3.713)	(3.614)	(1.888)	(6.591)	(6.243)	(4.704)	(4.181)	(4.752)	(6.977)
Unweighted Ns	963	625	625	625	625	625	625	625	625	625	625
Vocational	59.71	60.69	42.96	36.99	14.57	40.90	37.03	14.20	11.61	35.93	45.31
(s.e.)	(2.499)	(3.659)	(4.048)	(4.225)	(2.200)	(2.943)	(2.898)	(2.197)	(2.099)	(3.392)	(3.699)
Unweighted Ns	1,296	822	822	822	822	822	822	822	822	822	822
Other	49.63	52.20	38.35	33.67	14.99	31.65	29.51	8.08	15.30	29.25	57.86
(s.e.)	(4.021)	(4.481)	(4.881)	(5.373)	(3.075)	(4 268)	(4.267)	(1.712)	(2.463)	(4.683)	(5.418)
Unweighted Ns	918	513	513	513	513	513	513	513	513	513	513

Table 94—Percentage of nonbaccalaureate students attending postsecondary institutions who received financial aid and the percentage of aided students by financial aid source, by type of program and institution: 1989-90[1]—Continued

Program and institution type	Any financial aid	Students who received financial aid										
		Federal aid										
			Loans			Grants						
		Any federal aid	Any federal loan	Federal Stafford loan	Federal Perkins loan	Any federal grant	Federal Pell grant	Federal SEOG grant[2]	Federal CWS grant[3]	Any state aid[4]	Any institutional aid[4]
Private, nonprofit less-than-4-year											
Academic	52.99	72.01	36.92	34.29	7.08	55.33	52.72	11.71	17.71	29.80	41.38
(s.e.)	(4.940)	(7.509)	(7.573)	(7.344)	(2.600)	(6.639)	(6.716)	(3.479)	(4.733)	(6.754)	(5.544)
Unweighted Ns	495	316	316	316	316	316	316	316	316	316	316
Vocational	62.62	71.64	36.15	33.60	6.23	51.39	48.57	11.74	7.80	27.89	29.22
(s.e.)	(3.851)	(4.170)	(5.901)	(5.608)	(1.822)	(5.356)	(5.167)	(2.664)	(2.148)	(3.429)	(4.822)
Unweighted Ns	1,363	919	919	919	919	919	919	919	919	919	919
Other	52.89	46.30	18.73	17.90	1.27	33.79	33.46	1.90	2.01	50.42	28.72
(s.e.)	(8.234)	(13.662)	(7.224)	(7.098)	(0.951)	(10.685)	(10.629)	(1.271)	(1.112)	(13.760)	(9.386)
Unweighted Ns	197	102	102	102	102	102	102	102	102	102	102
Public 2- to 3-year											
Academic	26.21	57.54	16.10	13.97	2.20	49.62	48.53	5.82	4.01	29.87	24.90
(s.e.)	(1.869)	(2.842)	(1.981)	(1.794)	(1.010)	(3.183)	(3.203)	(1.381)	(1.062)	(3.375)	(2.569)
Unweighted Ns	1,297	424	424	424	424	424	424	424	424	424	424
Vocational	31.95	57.15	16.89	14.81	3.03	49.97	48.00	9.48	5.23	30.11	22.40
(s.e.)	(1.437)	(2.363)	(1.815)	(1.590)	(0.793)	(2.266)	(2.330)	(1.283)	(0.737)	(2.378)	(2.053)
Unweighted Ns	2,549	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034	1,034
Other	22.00	45.94	13.60	11.59	2.28	39.70	38.31	4.05	4.96	23.67	26.61
(s.e.)	(1.726)	(3.619)	(2.043)	(1.805)	(1.147)	(3.598)	(3.647)	(1.018)	(1.199)	(3.376)	(3.898)
Unweighted Ns	1,454	390	390	390	390	390	390	390	390	390	390

First row, first column reads: Of all nonbaccalaureate students attending postsecondary institutions in 1989-90, 38.29 percent received financial aid.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989-90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Supplementary Educational Opportunity Grant.

[3] College Work-Study.

[4] The state and institutional financial aid categories include both need-based and merit-based aid.

[5] Included in the total are students who may be missing data on particular row variables.

[6] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Estimates sum to greater than 100 percent because students may have received financial aid from more than one source.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 95—Average amount awarded to nonbaccalaureate students who received financial aid by financial aid source, by type of program and institution: 1989–90[1]

Program and institution type	All Grants	All Loans	Federal aid						State aid[4]	Institutional aid[4]
			Total	Pell grant	SEOG grant[2]	CWS grant[3]	Perkins loan	Stafford loan		
Total[5]	$1,705	$2,890	$2,806	$1,371	$501	$1,016	$1,244	$2,262	$1,126	$1,281
(s.e.)	(41.4)	(77.2)	(75.3)	(19.5)	(24.0)	(42.3)	(75.0)	(26.5)	(52.5)	(57.6)
Unweighted Ns	10,615	6,940	10,014	6,972	1,407	772	967	6,251	2,855	3,736
Program type[6]										
Academic	1,704	2,901	2,635	1,308	594	1,019	1,130	2,267	1,081	1,359
(s.e.)	(69.1)	(140.7)	(115.1)	(35.3)	(38.8)	(68.2)	(76.7)	(55.7)	(67.2)	(138.9)
Unweighted Ns	2,056	1,185	1,781	1,260	263	275	214	1,013	663	864
Vocational	1,755	2,855	2,960	1,405	474	1,080	1,283	2,281	1,204	1,240
(s.e.)	(45.7)	(63.0)	(89.5)	(23.9)	(27.0)	(67.0)	(106.0)	(26.6)	(62.5)	(57.2)
Unweighted Ns	7,354	5,297	7,469	5,193	1,038	354	629	4,856	1,802	2,305
Other	1,526	3,130	2,235	1,293	523	866	1,237	2,091	925	1,309
(s.e.)	(104.5)	(360.2)	(101.8)	(36.1)	(47.2)	(62.3)	(169.0)	(91.1)	(99.4)	(102.4)
Unweighted Ns	1,205	458	764	519	106	143	124	382	390	567
Institution type										
Public 4-year	1,928	2,402	2,858	1,487	572	1,131	1,009	2,189	1,185	1,397
(s.e.)	(69.5)	(100.5)	(124.3)	(28.9)	(57.7)	(95.6)	(48.9)	(57.5)	(65.6)	(95.0)
Unweighted Ns	963	520	790	561	126	105	139	405	305	386
Private, nonprofit 4-year	2,931	3,103	3,563	1,536	867	1,052	1,248	2,629	1,948	2,245
(s.e.)	(162.5)	(102.1)	(158.0)	(63.4)	(73.0)	(70.6)	(66.8)	(56.5)	(116.5)	(214.6)
Unweighted Ns	1,799	932	1,247	758	273	320	314	776	682	1,035
Public 2- to 3-year	1,321	2,705	1,853	1,198	435	996	1,164	1,968	716	877
(s.e.)	(54.2)	(271.7)	(62.8)	(23.9)	(39.6)	(68.9)	(139.0)	(74.8)	(39.3)	(66.9)
Unweighted Ns	1,653	362	1,111	957	161	109	50	279	595	456
Public vocational-technical	1,126	2,546	2,171	1,196	—	—	—	2,238	1,249	1,565
(s.e.)	(163.0)	(129.3)	(226.7)	(99.2)	—	—	—	(98.6)	(251.3)	(337.0)
Unweighted Ns	428	133	350	268	18	9	6	125	98	64
Private proprietary	1,988	3,049	3,635	1,522	432	1,134	1,436	2,335	2,005	1,363
(s.e.)	(77.1)	(73.8)	(111.3)	(33.5)	(40.2)	(252.7)	(194.7)	(29.2)	(114.8)	(98.6)
Unweighted Ns	4,672	4,448	5,564	3,793	687	74	377	4,180	730	1,291
Private, nonprofit less-than-4-year	2,183	2,953	3,016	1,484	602	711	1,247	2,198	1,827	1,384
(s.e.)	(100.9)	(231.5)	(203.7)	(53.0)	(70.9)	(82.8)	(85.9)	(84.5)	(162.0)	(141.5)
Unweighted Ns	1,100	545	952	635	142	155	81	486	445	504

Table 95—Average amount awarded to nonbaccalaureate students who received financial aid by financial aid source, by type of program and institution: 1989-90—Continued[1]

Program and institution type	All Grants	All Loans	Federal aid						State aid[4]	Institutional aid[4]
			Total	Pell grant	SEOG grant[2]	CWS grant[3]	Perkins loan	Stafford loan		
Public 4-year										
Academic	$1,894	$2,468	$2,980	$1,502	$618	$1,268	$1,284	$2,274	$1,268	$1,109
(s.e.)	(88.9)	(151.4)	(155.2)	(44.2)	(102.9)	(163.9)	(163.9)	(106.0)	(108.7)	(102.1)
Unweighted Ns	315	168	256	182	41	36	36	135	97	127
Vocational	2,090	2,438	2,918	1,484	537	1,229	1,229	2,189	1,192	1,587
(s.e.)	(101.8)	(125.0)	(145.8)	(40.2)	(69.4)	(151.2)	(151.2)	(69.2)	(98.1)	(156.5)
Unweighted Ns	425	256	377	272	61	41	41	199	155	169
Other	1,697	2,194	2,528	1,469	—	—	—	2,030	1,018	1,477
(s.e.)	(129.5)	(173.0)	(155.8)	(62.0)	—	—	—	(118.7)	(111.4)	(208.7)
Unweighted Ns	223	96	157	107	24	28	28	71	53	90
Private, nonprofit 4-year										
Academic	3,215	2,956	3,611	1,608	867	1,162	1,162	2,758	2,036	2,465
(s.e.)	(291.5)	(141.7)	(205.9)	(139.6)	(87.3)	(98.6)	(98.6)	(88.2)	(137.3)	(393.5)
Unweighted Ns	576	316	444	296	99	135	135	255	207	346
Vocational	2,848	3,370	3,661	1,499	873	1,000	1,000	2,672	1,911	2,221
(s.e.)	(150.7)	(162.4)	(173.1)	(45.3)	(105.2)	(89.9)	(89.9)	(78.6)	(135.3)	(168.7)
Unweighted Ns	745	394	521	308	130	100	100	331	313	382
Other	2,731	2,858	3,316	1,478	852	926	926	2,381	1,903	2,020
(s.e.)	(202.7)	(131.1)	(207.1)	(57.9)	(109.9)	(80.9)	(80.9)	(57.8)	(185.8)	(197.5)
Unweighted Ns	478	222	282	154	44	85	85	190	162	307
Private, nonprofit less-than-4-year										
Academic	2,303	2,844	3,050	1,492	601	642	642	2,170	1,689	1,321
(s.e.)	(200.0)	(349.9)	(322.5)	(85.4)	(131.3)	(82.3)	(82.3)	(173.2)	(220.2)	(196.0)
Unweighted Ns	260	125	214	151	35	58	58	107	101	144
Vocational	2,180	2,976	3,050	1,508	598	693	693	2,217	2,016	1,301
(s.e.)	(111.8)	(246.4)	(208.8)	(54.9)	(77.4)	(90.0)	(90.0)	(75.4)	(198.5)	(135.9)
Unweighted Ns	763	397	688	451	103	92	92	358	292	321
Other	1,861	—	2,518	1,206	—	—	—	—	1,273	2,199
(s.e.)	(259.0)	—	(561.0)	(113.5)	—	—	—	—	(99.4)	(935.0)
Unweighted Ns	77	23	50	3342	4	5	5	21	52	39

Table 95—Average amount awarded to nonbaccalaureate students who received financial aid by financial aid source, by type of program and institution: 1989–90—Continued[1]

Program and institution type	All Grants	All Loans	Federal aid						State aid[4]	Institutional aid[4]
			Total	Pell grant	SEOG grant[2]	CWS grant[3]	Perkins loan	Stafford loan		
Public 2- to 3-year										
Academic	$1,307	$2,870	$1,765	$1,151	$469	—	—	$1,991	$709	$995
(s.e.)	(84.1)	(398.1)	(94.6)	(40.6)	(55.2)	—	—	(149.9)	(47.3)	(199.1)
Unweighted Ns	376	80	255	218	31	22	8	59	140	113
Vocational	1,351	2,269	1,890	1,213	435	1,091	1,164	1,961	745	778
(s.e.)	(55.5)	(155.9)	(84.9)	(32.3)	(45.2)	(105.9)	(160.1)	(71.5)	(55.3)	(51.3)
Unweighted Ns	929	220	661	569	109	64	33	170	344	239
Other	1,264	3,791	1,862	1,217	—	—	—	1,959	638	953
(s.e.)	(128.1)	(733.8)	(120.3)	(49.1)	—	—	—	(182.4)	(79.5)	(123.6)
Unweighted Ns	348	62	195	170	21	23	9	50	111	104

First row, first column reads: Nonbaccalaureate grant recipients in 1989–90 received on average $1,705 in grants.

—Sample size was too small for reliable estimate.

[1] The sample includes undergraduates who were reported by surveyed postsecondary institutions as enrolled during academic year 1989–90 and who were seeking less than a bachelor's degree. Since institutions used different criteria for determining who was enrolled, the sample may include coursetakers as well as students enrolled in formal programs.

[2] Supplementary Educational Opportunity Grant.

[3] College Work-Study.

[4] The state and institutional financial aid categories include both need-based and merit-based aid.

[5] Included in the total are students who may be missing data on particular row variables.

[6] Students were asked to report the programs in which they were majoring; then these programs were classified using a taxonomy developed for less-than-4-year postsecondary institutions. All programs were classified as either academic (including mathematics and science; letters, humanities, and communications; among others), vocational (including agriculture; business and office; among others), or other (covering personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement).

NOTE: Dollar figures under the "federal aid" category do not sum to the total, because students received aid from different mixes of federal sources.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990 National Postsecondary Student Aid Study.

Table 96—Percentage of federal and state prison inmates reporting participation in educational programs since current admission, by selected characteristics: 1992

Selected characteristics	No participation	Nonvocational only*	Vocational only	Both nonvocational and vocational	Unweighted Ns
Total	37	30	13	20	
(s.e.)	(1.7)	(1.6)	(1.2)	(1.4)	1,144
Sex					
Male	37	30	13	20	
(s.e.)	(1.8)	(1.7)	(1.2)	(1.5)	1,073
Female	27	33	14	26	
(s.e.)	(3.1)	(4.9)	(5.4)	(5.6)	71
Race–ethnicity					
White, non-Hispanic	41	28	16	15	
(s.e.)	(2.9)	(3.2)	(1.9)	(1.9)	417
Black, non-Hispanic	33	31	13	23	
(s.e.)	(2.6)	(2.1)	(1.5)	(2.3)	478
Hispanic	38	29	10	23	
(s.e.)	(4.4)	(3.4)	(2.8)	(3.5)	211
Asian	—	—	—	—	
(s.e.)	—	—	—	—	0
Native American	—	—	—	—	
(s.e.)	—	—	—	—	34
Age					
16–19 years	31	29	9	31	
(s.e.)	(5.4)	(6.0)	(3.7)	(5.5)	51
20–29 years	35	32	12	20	
(s.e.)	(2.7)	(2.6)	(1.5)	(2.3)	483
30–49 years	36	29	15	20	
(s.e.)	(1.8)	(1.9)	(1.7)	(1.8)	543
50 or over	58	27	8	7	
(s.e.)	(6.1)	(5.3)	(3.4)	(3.1)	64
Parent's highest education					
0–8 years	33	25	18	24	
(s.e.)	(3.4)	(3.7)	(3.4)	(3.9)	179
9–12 years	40	32	12	15	
(s.e.)	(4.5)	(4.3)	(2.5)	(3.8)	131
High school diploma or GED	38	26	14	22	
(s.e.)	(3.1)	(2.5)	(2.0)	(1.9)	341
Postsecondary vocational	—	—	—	—	
(s.e.)	—	—	—	—	16
Some college or a college degree	36	30	14	20	
(s.e.)	(3.3)	(3.3)	(2.7)	(2.6)	219
Educational attainment					
0–8 years	39	32	7	22	
(s.e.)	(4.1)	(3.9)	(2.1)	(3.7)	157
9–12 years	33	35	9	22	
(s.e.)	(3.1)	(2.4)	(1.6)	(2.4)	382
High school diploma or GED	42	23	18	16	
(s.e.)	(2.5)	(2.7)	(2.2)	(1.7)	337
Postsecondary vocational	—	—	—	—	
(s.e.)	—	—	—	—	40
Some college or a college degree	32	27	18	22	
(s.e.)	(2.7)	(2.4)	(2.6)	(2.6)	224

Table 96—Percentage of federal and state prison inmates reporting participation in educational programs since current admission, by selected characteristics: 1992—Continued

Selected characteristics	No participation	Nonvocational only*	Vocational only	Both nonvocational and vocational	Unweighted Ns
Language currently spoken					
English only	36	30	14	20	
(s.e.)	(2.0)	(1.8)	(1.2)	(1.5)	960
Other only	—	—	—	—	
(s.e.)	—	—	—	—	25
English and other	39	27	11	23	
(s.e.)	(4.3)	(3.5)	(2.5)	(4.2)	150
Expected release date (in months)					
0 to less than 12	38	30	16	17	
(s.e.)	(2.8)	(2.7)	(1.8)	(2.0)	439
12 to less than 24	38	26	16	20	
(s.e.)	(4.3)	(3.5)	(3.4)	(3.9)	159
24 to less than 48	32	35	13	20	
(s.e.)	(4.0)	(3.7)	(2.5)	(3.4)	158
48 to less than 120	29	31	11	29	
(s.e.)	(4.0)	(4.0)	(3.4)	(6.1)	117
120 or more	—	—	—	—	
(s.e.)	—	—	—	—	38
Don't expect release	41	26	13	19	
(s.e.)	(4.7)	(4.5)	(3.7)	(4.4)	96
Don't know	43	38	6	13	
(s.e.)	(5.3)	(4.5)	(2.8)	(4.4)	67
Length of current incarceration (in months)					
0 to less than 24	49	26	14	11	
(s.e.)	(3.3)	(3.0)	(1.8)	(2.0)	339
24 to less than 48	30	32	18	21	
(s.e.)	(3.0)	(3.3)	(3.1)	(3.2)	224
48 to less than 120	32	31	13	24	
(s.e.)	(3.2)	(2.3)	(2.7)	(2.8)	301
120 or more	20	32	10	38	
(s.e.)	(3.6)	(4.3)	(2.6)	(4.6)	116

First row, first column reads: Of all male inmates in 1992, 37 percent did not participate in education or vocational programs during their current admission.

—Sample size was too small for reliable estimate.

*Nonvocational activities include adult basic education and preparation for the G.E.D., among other activities.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Adult Literacy Survey, 1992.

Table 97—Percentage of public high schools integrating academic and vocational education before or during 1991-92 by type of school, by type of integration effort: 1991-92

	Comprehensive high schools				Vocational schools		
Type of integration effort	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
Schools offering vocational courses							
Total	82.4	85.7	88.8	79.8	91.1	89.1	93.5
(s.e)	(1.20)	(2.79)	(3.58)	(1.55)	(2.49)	(4.39)	(1.56)
unweighted Ns	1,091	284	130	677	642	214	428
Type of integration effort							
Incorporate employability or generic work skills into vocational curricula	68.9	71.6	75.3	66.5	83.1	77.4	90.1
(s.e.)	(1.60)	(3.63)	(5.65)	(1.96)	(2.90)	(4.90)	(1.76)
Develop integrated curricula	46.7	50.2	56.3	43.3	66.7	65.2	68.5
(s.e.)	(1.85)	(3.89)	(5.59)	(2.14)	(3.09)	(5.38)	(2.91)
Establish procedures for teacher collaboration	44.0	50.2	46.9	40.7	56.8	53.4	60.8
(s.e.)	(1.69)	(3.75)	(6.00)	(2.52)	(3.26)	(4.80)	(3.24)
Use cross-curriculum materials	43.7	50.0	44.5	40.7	44.2	53.6	32.5
(s.e.)	(1.68)	(4.07)	(4.50)	(2.27)	(3.04)	(5.00)	(3.11)
Develop sequence of integrated courses	41.9	42.3	53.8	39.5	53.4	53.1	53.6
(s.e.)	(1.65)	(4.11)	(5.89)	(2.09)	(3.63)	(6.38)	(2.83)
Use integrated commercial curricula	32.3	36.3	33.3	30.4	50.7	52.3	48.6
(s.e.)	(1.60)	(3.04)	(4.74)	(1.98)	(2.48)	(4.46)	(2.61)
Provide coordinated courses	20.1	20.5	23.1	19.4	31.6	36.0	26.2
(s.e.)	(1.79)	(4.39)	(4.38)	(2.44)	(2.96)	(4.97)	(2.88)
Provide common planning periods for teachers	18.7	19.4	32.8	15.7	29.2	32.4	25.2
(s.e.)	(1.83)	(2.82)	(6.01)	(2.39)	(2.85)	(4.49)	(2.46)
Increase teacher planning time	16.7	15.7	21.0	16.4	27.0	25.6	28.7
(s.e.)	(1.45)	(2.34)	(4.48)	(1.79)	(3.00)	(4.10)	(2.75)
Provide interdisciplinary course	14.4	12.8	15.2	14.9	16.1	20.9	10.0
(s.e.)	(1.40)	(1.87)	(3.87)	(1.98)	(2.46)	(4.22)	(1.94)
Other	0.7	0.3	0.7	0.9	1.2	1.3	1.0
(s.e.)	(0.23)	(0.35)	(0.70)	(0.32)	(0.57)	(1.01)	(0.28)

Table 97—Percentage of public high schools integrating academic and vocational education before or during 1991-92 by type of school, by type of integration effort: 1991-92—Continued

Type of integration effort	Comprehensive high schools				Vocational schools		
	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
Schools integrating academic and vocational education							
Subject areas integrated							
Any subject area	79.2	78.9	83.5	78.4	88.7	87.8	89.7
(s.e.)	(1.51)	(3.08)	(4.93)	(1.76)	(2.09)	(3.45)	(1.65)
unweighted Ns	921	250	116	555	595	196	399
Agricultural education	34.1	40.8	43.9	28.8	45.5	52.5	37.1
(s.e.)	(1.65)	(3.61)	(5.01)	(2.39)	(3.45)	(5.50)	(2.92)
Business and office	58.4	60.4	56.3	57.9	64.7	62.7	67.0
(s.e.)	(1.94)	(3.94)	(5.48)	(2.13)	(3.29)	(5.40)	(3.04)
Marketing/distributive education	23.3	21.8	23.5	24.0	29.0	22.8	36.4
(s.e.)	(1.81)	(2.66)	(4.84)	(2.24)	(2.75)	(4.75)	(3.16)
Occupational home economics	27.1	29.6	34.2	24.5	35.4	37.8	32.5
(s.e.)	(2.08)	(3.44)	(5.89)	(2.94)	(3.06)	(5.14)	(2.92)
Health occupations	18.5	19.8	20.3	17.5	41.0	27.0	57.7
(s.e.)	(1.62)	(3.76)	(4.64)	(1.56)	(3.08)	(4.38)	(2.63)
Trade and industry	41.6	47.1	49.7	37.2	64.7	50.1	82.0
(s.e.)	(2.08)	(3.64)	(6.45)	(2.16)	(3.46)	(5.79)	(2.26)
Other	6.8	7.3	4.0	7.2	5.3	6.2	4.2
(s.e.)	(0.85)	(1.59)	(1.63)	(1.20)	(1.37)	(2.31)	(1.32)
Schools in which academic and vocational faculty worked together							
Amount of time spent by teachers integrating courses							
Unweighted Ns	538	159	70	309	402	150	252
No regular schedule	81.7	85.7	87.6	78.1	75.8	77.5	73.5
(s.e.)	(1.96)	(3.02)	(5.20)	(2.88)	(2.63)	(4.22)	(3.38)
Less than 1 hour per week	7.0	6.3	4.8	7.8	6.3	4.2	9.2
(s.e.)	(1.32)	(2.43)	(3.80)	(1.59)	(1.53)	(1.43)	(2.96)
1 to 2 hours per week	6.7	4.3	3.2	8.8	7.5	6.6	8.8
(s.e.)	(0.83)	(1.40)	(1.78)	(1.54)	(1.40)	(2.33)	(1.16)
2 to 3 hours per week	2.8	1.7	2.9	3.5	4.6	3.9	5.4
(s.e.)	(1.09)	(0.78)	(2.02)	(1.84)	(1.63)	(2.33)	(2.01)
More than 3 hours per week	1.9	2.1	1.4	1.9	5.9	7.8	3.1
(s.e.)	(0.48)	(1.20)	(1.23)	(0.65)	(1.78)	(3.03)	(1.21)

Table 97—Percentage of public high schools integrating academic and vocational education before or during 1991-92 by type of school, by type of integration effort: 1991-92—Continued

	Comprehensive high schools				Vocational schools		
Type of integration effort	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
Schools in which academic and vocational faculty worked together—Continued							
Type of interactions between academic and vocational educators							
Any interaction	63.2	69.3	62.2	60.8	72.4	79.2	64.6
(s.e.)	(1.74)	(3.58)	(6.42)	(2.07)	(2.88)	(2.90)	(2.40)
Develop academic materials for vocational courses	41.2	48.1	47.1	36.6	49.4	52.3	45.8
(s.e.)	(2.03)	(4.15)	(6.10)	(2.05)	(3.57)	(3.57)	(2.50)
Develop applied academic materials for academic courses	32.3	36.5	34.9	30.0	42.1	45.5	38.4
(s.e.)	(2.15)	(4.23)	(6.17)	(1.95)	(3.25)	(3.56)	(2.44)
Engage in cross-curriculum efforts	30.4	37.6	23.6	28.6	26.6	37.6	13.9
(s.e.)	(2.06)	(4.03)	(4.86)	(1.92)	(2.56)	(3.46)	(1.74)
Create new applied academic or interdisciplinary courses	21.5	22.2	18.3	22.0	23.3	23.9	22.9
(s.e.)	(1.88)	(3.40)	(4.43)	(1.76)	(2.72)	(3.05)	(2.11)
Team teaching	14.1	14.8	4.7	15.8	17.3	15.3	19.8
(s.e.)	(1.11)	(2.57)	(1.77)	(2.02)	(2.02)	(2.57)	(2.00)
Develop coordinated academic and vocational courses	13.6	12.0	13.7	14.3	19.4	22.0	16.4
(s.e.)	(1.74)	(2.42)	(3.35)	(1.49)	(2.41)	(2.96)	(1.86)
Other	3.8	3.4	1.1	4.6	5.0	5.8	4.0
(s.e.)	(0.76)	(1.20)	(0.78)	(1.15)	(1.24)	(2.25)	(1.20)

Schools offering vocational courses—First row, first column reads: 82.4 percent of comprehensive schools offering vocational courses reported taking steps to integrate vocational and academic education by 1991-92.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Public Secondary Schools, Spring 1992.

Table 98—Percentage of public high schools offering school-to-work transition programs by 1991-92 by type of school, by program type and program characteristics: 1991-92

Program type and program characteristics	Comprehensive high schools: Total	Comprehensive high schools: Not served by external vocational school	Comprehensive high schools: Served by full-time vocational high school	Comprehensive high schools: Served by area or regional vocational school	Vocational schools: Total	Vocational schools: Full-time vocational high school	Vocational schools: Area or regional vocational school
All schools							
Unweighted Ns	1,207	308	134	765	651	222	429
School-based enterprise	15.4	19.6	13.4	13.8	32.5	25.7	41.6
(s.e.)	(1.02)	(2.29)	(4.16)	(1.16)	(2.65)	(3.90)	(2.91)
Cooperative education program	47.8	45.6	53.9	47.9	58.5	53.5	65.1
(s.e.)	(1.59)	(3.68)	(5.63)	(1.81)	(3.31)	(5.55)	(3.30)
Other work experience	20.6	17.6	28.3	20.6	30.1	22.5	40.2
(s.e.)	(1.23)	(2.51)	(4.70)	(1.32)	(2.81)	(4.07)	(2.90)
Schools offering vocational courses							
Unweighted Ns	1,091	284	130	677	642	214	428
School-based enterprise	18.0	23.5	14.2	16.3	34.3	28.0	42.2
(s.e.)	(1.12)	(2.36)	(4.43)	(1.34)	(2.51)	(3.88)	(2.85)
Cooperative education program	55.9	54.5	55.9	56.5	61.8	58.3	66.1
(s.e.)	(1.93)	(4.02)	(6.06)	(2.13)	(3.48)	(5.93)	(3.23)
Program features							
Employer assurance of supervision	48.6	50.1	44.3	48.7	58.5	55.4	62.2
(s.e.)	(1.90)	(3.74)	(5.30)	(2.17)	(3.28)	(5.73)	(3.22)
Employer assurance of on-the-job learning opportunities	48.2	48.5	44.3	48.8	58.7	55.8	62.2
(s.e.)	(1.85)	(3.57)	(5.30)	(2.22)	(3.33)	(5.66)	(3.23)
Employer evaluation influences students' grades	48.0	50.0	41.7	48.3	59.8	56.2	62.0
(s.e.)	(1.75)	(3.73)	(4.94)	(2.14)	(3.37)	(5.72)	(3.22)
Coordinators have release time to visit job sites	47.8	49.2	45.1	47.7	55.5	52.0	60.0
(s.e.)	(2.03)	(3.73)	(5.36)	(2.28)	(3.36)	(5.69)	(3.62)
Written plan for each student	44.9	46.6	43.1	44.5	56.1	53.2	59.8
(s.e.)	(1.93)	(3.63)	(5.19)	(2.19)	(3.29)	(5.65)	(3.24)
Coordinators meet employer before student placed	41.3	40.8	33.8	42.0	47.7	39.4	58.1
(s.e.)	(1.99)	(3.94)	(5.34)	(2.33)	(3.00)	(4.89)	(3.17)

Table 98—Percentage of public high schools offering school-to-work transition programs by 1991-92 by type of school, by program type and program characteristics: 1991-92—Continued

Program type and program characteristics	Comprehensive high schools: Total	Comprehensive high schools: Not served by external vocational school	Comprehensive high schools: Served by full-time vocational high school	Comprehensive high schools: Served by area or regional vocational school	Vocational schools: Total	Vocational schools: Full-time vocational high school	Vocational schools: Area or regional vocational school
Schools offering vocational courses—Continued							
Cooperative education program—Continued							
Program features—Continued							
Students absent from school prohibited from working that day	38.0	38.3	34.1	38.5	49.4	47.7	51.5
(s.e.)	(1.51)	(3.15)	(4.82)	(1.99)	(3.47)	(6.01)	(2.95)
Limit on number of students per coordinator	36.4	36.1	31.8	37.4	36.5	35.6	37.5
(s.e.)	(1.61)	(3.66)	(4.75)	(1.79)	(3.08)	(6.01)	(2.90)
Coordinators only work in own subject area	34.8	34.8	32.3	35.3	39.1	41.5	36.1
(s.e.)	(1.81)	(2.80)	(4.61)	(2.33)	(2.94)	(4.95)	(3.06)
Coordinators find student jobs	26.0	21.5	28.2	27.5	30.7	26.7	35.7
(s.e.)	(1.57)	(2.83)	(4.80)	(2.38)	(2.43)	(3.92)	(2.33)
Coordinators paid at least one month in summer	21.4	19.4	23.1	22.0	31.2	34.9	26.5
(s.e.)	(1.46)	(2.38)	(4.18)	(1.72)	(3.14)	(4.88)	(2.75)
Eligibility for program participation							
Completion of course of instruction	38.1	39.3	36.5	37.8	40.0	40.0	40.1
(s.e.)	(1.78)	(3.66)	(5.27)	(2.12)	(3.38)	(5.48)	(3.15)
Minimum GPA	16.2	14.9	20.3	15.9	32.3	28.2	37.3
(s.e.)	(1.23)	(2.66)	(3.38)	(1.66)	(3.10)	(5.30)	(3.03)
Other work experience	284.1	21.1	29.9	24.3	31.8	24.6	40.8
(s.e.)	(1.33)	(2.85)	(4.91)	(1.51)	(2.79)	(4.19)	(2.83)
Program features							
Employer assurance of supervision	18.4	15.4	24.1	18.7	29.3	23.2	36.9
(s.e.)	(1.18)	(2.67)	(4.44)	(1.31)	(2.70)	(4.24)	(2.74)
Employer assurance of on-the-job learning opportunities	17.8	14.0	24.1	18.3	28.6	22.1	36.8
(s.e.)	(1.21)	(2.61)	(4.44)	(1.42)	(2.62)	(4.07)	(2.76)
Employer evaluation influences students' grades	17.6	15.5	20.7	17.9	28.8	22.6	36.4
(s.e.)	(1.24)	(2.71)	(4.17)	(1.37)	(2.56)	(4.00)	(2.76)
Coordinators have release time to visit job sites	16.5	14.4	21.5	16.5	24.2	18.6	31.1
(s.e.)	(1.19)	(2.45)	(4.29)	(1.42)	(2.22)	(3.23)	(2.33)
Written plan for each student	16.4	13.5	22.5	16.7	22.6	16.6	30.2
(s.e.)	(1.04)	(2.19)	(4.53)	(1.37)	(1.92)	(2.78)	(2.43)
Coordinators meet employer before student placed	14.0	11.4	18.2	14.4	26.2	19.1	35.0
(s.e.)	(1.29)	(2.44)	(3.98)	(1.59)	(2.47)	(3.77)	(2.81)

Table 98—Percentage of public high schools offering school-to-work transition programs by 1991-92 by type of school, by program type and program characteristics: 1991-92—Continued

Program type and program characteristics	Comprehensive high schools				Vocational schools		
	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
Schools offering vocational courses—Continued							
Other work experience—Continued							
Program features—Continued							
Students absent from school prohibited from working that day	13.7	11.3	15.3	14.4	21.9	15.6	29.8
(s.e.)	(1.05)	(1.96)	(3.53)	(1.27)	(1.92)	(2.52)	(2.89)
Limit on number of students per coordinator	12.7	10.7	21.1	11.9	17.9	16.9	19.2
(s.e.)	(0.89)	(1.80)	(3.96)	(1.26)	(2.05)	(3.52)	(1.62)
Coordinators only work in own subject area	11.8	10.7	15.7	11.5	20.7	16.8	25.4
(s.e.)	(1.00)	(2.24)	(3.45)	(1.50)	(2.21)	(3.15)	(2.39)
Coordinators find student jobs	9.2	8.2	11.6	9.2	18.4	15.5	22.1
(s.e.)	(1.04)	(2.04)	(3.01)	(1.23)	(2.20)	(3.77)	(1.95)
Coordinators paid at least one month in summer	6.8	5.3	16.7	5.6	9.7	10.4	8.7
(s.e.)	(0.83)	(1.73)	(4.03)	(0.96)	(1.64)	(2.87)	(1.34)
Eligibility for program participation							
Completion of course of instruction	11.2	8.0	16.1	11.8	18.7	16.2	21.8
(s.e.)	(1.94)	(1.68)	(4.06)	(1.23)	(0.99)	(3.16)	(1.91)
Minimum GPA	6.9	4.6	8.6	7.6	14.4	8.9	21.3
(s.e.)	(0.88)	(1.47)	(3.28)	(1.08)	(1.75)	(2.59)	(2.51)

All schools—Second row, first column reads: Of all comprehensive public high schools, 15.4 percent reported offering school-based enterprise programs by 1991-92.

Schools offering vocational courses—Second row, first column reads: Of comprehensive public high schools offering vocational courses, 18.0 percent reported offering school-based enterprise programs by 1991-92.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Public Secondary Schools, Spring 1992.

Table 99—Percentage of public high schools involving business, labor, and community groups in their vocational education activities by type of school, by type of private sector involvement: 1991–92

Program type and program characteristics	Comprehensive high schools				Vocational schools		
	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
	Schools offering vocational courses						
Unweighted Ns	1,091	284	130	677	642	214	428
Business involvement	74.1	70.3	73.3	75.9	83.6	83.2	84.2
(s.e.)	(1.58)	(3.46)	(5.58)	(1.94)	(2.37)	(3.86)	(2.59)
Place students in jobs	44.8	40.4	46.9	46.3	44.4	45.1	43.5
(s.e.)	(1.98)	(3.48)	(5.65)	(2.21)	(4.32)	(6.79)	(3.28)
Provide career guidance	43.7	41.2	39.3	45.6	42.5	37.4	48.8
(s.e.)	(1.79)	(3.49)	(5.01)	(2.23)	(2.61)	(4.83)	(3.17)
Provide equipment and supplies	36.3	39.9	35.4	34.9	50.8	43.7	59.7
(s.e.)	(1.85)	(3.75)	(5.25)	(2.17)	(2.89)	(4.68)	(3.35)
Determine adequacy of equipment	36.1	38.9	41.5	33.8	39.4	36.9	42.6
(s.e.)	(1.56)	(3.05)	(5.63)	(2.28)	(3.10)	(5.30)	(2.70)
Provide internships, co-ops, or other work-based experience	31.5	28.2	26.4	33.9	31.3	34.9	26.7
(s.e.)	(1.75)	(3.18)	(4.61)	(2.01)	(3.67)	(6.36)	(2.87)
Tutor or instruct students	22.7	22.8	20.8	23.1	32.1	32.6	31.5
(s.e.)	(1.53)	(2.77)	(4.39)	(1.80)	(2.66)	(4.41)	(2.78)
Other	0.7	0.5	0.3	0.8	0.7	0.4	0.9
(s.e.)	(0.27)	(0.46)	(0.21)	(0.39)	(0.28)	(0.31)	(0.51)
Labor involvement	46.1	45.3	49.6	45.7	57.9	54.7	62.0
(s.e.)	(1.50)	(3.33)	(7.19)	(2.30)	(3.89)	(6.96)	(3.29)
Provide career guidance	25.7	24.1	29.2	25.7	28.3	25.4	32.0
(s.e.)	(1.18)	(2.69)	(5.29)	(1.62)	(2.52)	(4.47)	(2.98)
Place students in jobs	25.5	23.9	25.5	26.2	30.8	26.1	36.7
(s.e.)	(1.51)	(2.57)	(5.13)	(2.31)	(2.43)	(3.68)	(2.85)
Determine adequacy of equipment	20.8	21.8	22.4	20.0	28.4	20.9	37.4
(s.e.)	(1.36)	(2.98)	(4.88)	(1.84)	(2.40)	(3.79)	(3.53)
Provide internships, co-ops, or other work-based experience	18.2	14.5	21.0	19.3	25.1	23.8	26.7
(s.e.)	(1.36)	(2.01)	(4.53)	(1.77)	(2.54)	(3.83)	(2.94)
Provide equipment and supplies	13.5	12.8	12.8	14.0	18.9	12.7	26.6
(s.e.)	(1.22)	(2.17)	(3.47)	(1.49)	(2.25)	(2.76)	(3.41)
Tutor or instruct students	10.7	12.2	12.1	9.8	18.3	17.3	19.4
(s.e.)	(0.79)	(2.11)	(2.72)	(1.25)	(3.04)	(5.30)	(2.20)
Other	0.5	0.1	0.2	0.7	0.7	0.3	1.2
(s.e.)	(0.22)	(0.01)	(0.21)	(0.35)	(0.25)	(0.03)	(0.56)

Table 99—Percentage of public high schools involving business, labor, and community groups in their vocational education activities by type of school, by type of private sector involvement: 1991-92—Continued

Program type and program characteristics	Comprehensive high schools				Vocational schools		
	Total	Not served by external vocational school	Served by full-time vocational high school	Served by area or regional vocational school	Total	Full-time vocational high school	Area or regional vocational school
Schools offering vocational courses							
Community groups' involvement	55.5	58.8	61.8	52.8	62.7	58.7	67.5
(s.e.)	(2.06)	(4.42)	(6.20)	(2.79)	(3.33)	(5.73)	(2.80)
Provide career guidance	32.2	31.0	34.7	32.1	31.8	26.6	38.2
(s.e.)	(1.65)	(3.43)	(5.09)	(2.21)	(2.68)	(5.25)	(2.43)
Place students in jobs	27.6	29.3	29.0	26.6	31.1	21.4	43.3
(s.e.)	(1.64)	(3.69)	(4.64)	(2.51)	(2.65)	(4.10)	(3.16)
Determine adequacy of equipment	26.1	28.9	40.6	22.1	32.3	28.8	36.6
(s.e.)	(1.73)	(3.36)	(5.61)	(2.11)	(3.16)	(5.23)	(2.91)
Provide equipment and supplies	23.9	25.2	27.0	22.7	30.2	25.1	36.6
(s.e.)	(1.57)	(4.08)	(4.94)	(1.76)	(3.02)	(4.29)	(2.93)
Provide internships, co-ops, or other work-based experience	21.5	22.3	17.4	21.9	27.2	22.7	32.8
(s.e.)	(1.62)	(3.33)	(3.76)	(1.86)	(2.65)	(4.13)	(2.77)
Tutor or instruct students	21.1	23.8	22.4	19.7	27.8	30.3	24.6
(s.e.)	(1.38)	(2.64)	(4.84)	(1.82)	(3.74)	(6.49)	(2.15)
Other	0.7	0.6	0.3	0.7	1.1	1.2	0.9
(s.e.)	(0.26)	(0.54)	(0.21)	(0.36)	(0.56)	(0.94)	(0.51)

Second row, first column reads: Of all comprehensive public high schools offering vocational courses, 74.1 percent reported some type of business involvement in their vocational education activities.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Public Secondary Schools, Spring 1992.

Table 100—Percentage of public postsecondary institutions integrating academic and vocational curricula by type of institution, by type of integration effort: 1991–92

Type of integration effort	Comprehensive community college	Postsecondary vocational–technical institute	Area/regional vocational school serving postsecondary students
All institutions			
Total	98.8	96.0	97.2
Institutions that had begun integrating curricula by 1991–92			
Type of integration effort			
Support remedial/developmental education	96.4	92.6	93.1
Establish general education competencies for vocational students	83.7	84.6	84.7
Develop applied academics course	78.1	78.3	63.9
Hold planning meetings to develop programs	77.8	71.4	73.6
Use cross-curriculum materials	67.4	45.1	27.8
Conduct in-service training for occupational/technical staff	47.6	48.6	50.0
Provide coordinated courses	42.4	46.9	41.7
Conduct in-service training for general/transfer education staff	37.8	38.9	27.8
Provide interdisciplinary courses	35.1	35.4	16.7
Use commercially available courses	21.0	26.3	41.7
Other	9.8	12.0	5.6
Programs in which integrated curricula are found			
None	14.2	14.4	14.5
Associate degree programs in occupational/technical fields	63.1	41.8	6.5
All occupational/technical fields	35.9	52.3	51.6
All programs	31.2	24.2	17.7
Remedial/developmental programs for occupational students	27.1	37.3	27.4
Remedial/developmental programs for all students	25.3	35.3	25.8
Other	3.5	6.5	4.8
Amount of time spent by faculty developing integrated programs			
No regular schedule	73.8	75.6	89.6
Less than 1 hour per week	10.7	10.1	4.2
1-2 hours per week	11.3	6.7	0.0
2-3 hours per week	2.1	3.4	2.1
More than 3 hours per week	2.1	4.2	4.2

Table 100—Percentage of public postsecondary institutions integrating academic and vocational curricula by type of institution, by type of integration effort: 1991-92—Continued

Type of integration effort	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
Institutions that had begun integrating curricula by 1991-92—Continued			
Types of faculty involvement in developing integrated curricula			
Review general education requirements	70.7	53.3	45.1
Develop academic materials for vocational courses	53.0	51.1	56.9
Engage in cross-curriculum efforts (e.g., writing across curriculum)	52.0	23.4	9.8
Create applied academic or interdisciplinary courses	46.9	32.1	25.5
Develop applied academic materials for general ed. or transfer courses	45.2	38.0	29.4
Develop coordinated courses	30.8	22.6	19.6
Teach in teams	22.1	20.4	7.8
Other	4.8	5.1	2.0

All institutions—First row, first column reads: Of all comprehensive community colleges, 98.8 percent reported either that they had taken steps toward integration of academic and vocational education by 1991-92 or that they planned to take such steps in 1992-93.

Institutions that had begun integrating curricula by 1991-92—First row, first column reads: Of comprehensive community colleges that had begun integrating academic and vocational curricula by 1991-92, 96.4 percent reported supporting remedial or developmental education.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Two-Year Public Postsecondary Institutions, Spring 1992.

Table 101—Percentage of public postsecondary institutions offering tech-prep programs by type of institution, by selected program characteristics: 1991-92

Selected program characteristics	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
All institutions			
Date of tech-prep program arrangement			
Before 1991-92	44.3	30.9	19.4
Starting or continuing in 1991-92	74.2	57.1	34.7
Planned for or continuing in 1992-93	86.7	76.6	44.4
Planned for or continuing in future years	92.1	82.3	65.3
Institutions that had begun a tech-prep program or planned to do so			
Steps taken toward tech-prep implementation by 1991-92			
Planning meetings held with local school districts/schools	87.4	75.4	41.7
Articulation agreements developed with local school districts/schools	83.7	65.7	37.5
Secondary and postsecondary instructors collaborated	70.7	58.9	31.9
Postsecondary credit for high school courses granted	65.8	53.7	34.7
Secondary/postsecondary majors or career paths established	62.1	49.7	34.7
Policy adopted by governing board	58.5	53.1	31.9
Non-duplicative sequences of secondary/postsecondary courses established	58.1	48.0	30.6
High school students given written publicity	53.2	45.1	27.8
Secondary and postsecondary instructors trained jointly	50.7	46.3	27.8
Postsecondary curricula modified	48.7	32.0	23.6
Tech-prep coordinator hired	48.0	40.6	23.6
"All aspects of the industry" curriculum developed	31.9	31.4	23.6
Other	3.9	5.1	1.4

Table 101—Percentage of public postsecondary institutions offering tech-prep programs by type of institution, by selected program characteristics: 1991-92*—Continued

Selected program characteristics	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
Institutions that had begun a tech-prep program or planned to do so—Continued			
Tech-prep program areas			
Agriculture	18.1	16.6	6.9
Business and management	64.3	38.9	16.7
Office support occupations	68.1	50.9	37.5
Marketing and distribution	34.2	23.4	13.9
Health	56.7	44.6	40.3
Occupational home economics	19.6	18.9	8.3
Protective services	20.6	7.4	0.0
Computers/data processing	53.2	48.0	26.4
Communications, engineering, and science technologies	53.5	46.3	16.7
Trade and industrial	61.8	60.6	43.1

All institutions—First row, first column reads: Of all comprehensive community colleges, 44.3 percent offered a tech-prep program before 1991-92.

Institutions that had begun a tech-prep program or planned to do so—First row, first column reads: Of comprehensive community colleges that had begun a tech-prep program or planned to do so, 87.4 percent reported holding planning meetings with local school districts or schools.

*For the purposes of the survey, tech-prep programs were defined as programs that involve articulation agreements with at least one secondary district or school and that provide at least two years of secondary and two years of postsecondary coursework leading to an associate's degree or a two-year certificate in a specific career field.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Two-Year Public Postsecondary Institutions, Spring 1992.

Table 102—Average number of tech-prep consortium members and students by type of public postsecondary institution, by types of consortium members and students: 1991-92*

Types of consortium members and students	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
Institutions that had begun tech-prep programs by 1991-92			
Tech-prep consortium members			
Regular or comprehensive high schools	8.4	5.4	4.9
Regular secondary school districts	7.9	7.5	5.5
Postsecondary occupational/technical programs	5.9	9.6	4.6
Other postsecondary institutions	1.4	0.9	1.6
Secondary vocational schools	1.0	1.0	1.0
Vocational secondary school districts	0.9	1.7	1.2
Tech-prep students			
Secondary students	41.6	40.3	66.6
Postsecondary students	8.3	5.1	2.7

First row, first column reads: Comprehensive community colleges that had begun tech-prep programs by 1991-92 reported that, on average, 8.4 regular or comprehensive high schools participated in their tech-prep consortia.

*For the purposes of the survey, tech-prep programs were defined as programs that involve articulation agreements with at least one secondary district or school and that provide at least 2 years of secondary and 2 years of postsecondary coursework leading to an associate's degree or a 2-year certificate in a specific career field.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Two-Year Public Postsecondary Institutions, Spring 1992.

Table 103—Percentage of public postsecondary institutions offering various school-to-work transition programs by type of institution, by type of program: 1991-92

Type of school-to-work program	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
	All institutions		
Job placement services			
Offered to all students	82.1	78.3	68.1
Offered to occupational/technical students only	3.6	6.9	12.5
Cooperative education or work experience program	75.9	54.9	52.8
Apprenticeship program	16.9	18.3	9.7
School-based enterprises	9.2	7.4	15.3

First row, first column reads: Of all comprehensive community colleges, 82.1 percent offered job placement services to all students in 1991-92.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Two-Year Public Postsecondary Institutions, Spring 1992.

Table 104—Percentage of public postsecondary institutions offering cooperative education or work experience programs by type of institution, by various program characteristics: 1991-92

Program characteristics	Comprehensive community college	Postsecondary vocational-technical institute	Area/regional vocational school serving postsecondary students
Institutions offering cooperative education or work experience programs			
Employer provides assurance of on-the-job learning	69.5	50.3	50.0
Employer provides assurance of supervision	69.2	49.1	45.8
Employer evaluation influences student grade	68.0	48.0	47.2
Students have written training plans	64.1	42.3	44.4
Students complete specific number of credit hours for eligibility	61.3	45.1	41.7
Coordinators/faculty supervise in own subject only	53.5	45.7	36.1
Coordinators/faculty supervise limited number of students	46.2	27.4	36.1
Students need minimum GPA for eligibility	42.1	38.9	27.8
Coordinators/faculty find student jobs	29.6	29.7	22.2
Students complete separate course of related instruction	2.0	2.2	2.1

First row, first column reads: Of comprehensive community colleges offering cooperative education or work experience programs, 69.5 percent reported that employers provided assurances of on-the-job training as part of their cooperative education or work experience program.

SOURCE: U.S. Department of Education, National Assessment of Vocational Education, Survey of Two-Year Public Postsecondary Institutions, Spring 1992.

Table 105—Average NAEP mathematics scores for public high school graduates by vocational credits earned, by selected curriculum characteristics: 1990

Curriculum characteristics	All students	Students earning varying numbers of vocational credits			Population distribution (percent)
		Less than 4.00	4.00–7.99	8.00 or more	
Total	296.4	308.5	285.4	269.5	100.0
(s.e.)	(1.29)	(1.45)	(1.29)	(1.64)	N/A
unweighted Ns	3,061	1,718	1,037	306	3,061
Area of specialization[1]					
College prep	318.5	320.9	308.9	—	32.8
(s.e.)	(1.21)	(1.26)	(2.66)	—	(1.99)
unweighted Ns	1,076	883	178	15	1,076
Vocational	276.3	—	281.0	268.4	22.2
(s.e.)	(1.43)	—	(1.73)	(1.74)	(1.45)
unweighted Ns	656	16	386	254	656
Other	290.3	296.7	281.1	268.1	45.1
(s.e.)	(2.12)	(2.75)	(1.84)	(5.20)	(1.80)
unweighted Ns	1,329	819	473	37	1,329
Compliance with New Basics Standards[2]					
Met all standards	319.4	323.1	308.5	—	15.7
(s.e.)	(1.98)	(1.85)	(4.22)	—	(1.73)
unweighted Ns	483	370	102	11	483
Met English, math, science, and social studies standards	307.8	313.4	293.9	—	25.4
(s.e.)	(2.35)	(1.90)	(3.47)	—	(1.46)
unweighted Ns	870	644	203	23	870
Met English and math standards, and had at least 2 years of science and social studies	290.2	296.8	286.4	276.0	18.9
(s.e.)	(1.87)	(2.54)	(2.22)	(3.60)	(1.31)
unweighted Ns	603	275	272	56	603
Met English standards and had at least 2 years of math, science, and social studies	277.5	286.7	273.6	267.2	14.5
(s.e.)	(1.58)	(2.28)	(1.89)	(2.30)	(1.30)
unweighted Ns	434	163	184	87	434
All other graduates	286.4	303.7	279.9	267.4	25.5
(s.e.)	(4.04)	(6.26)	(2.64)	(2.23)	(2.48)
unweighted Ns	671	266	276	129	671
Academic credits accumulated					
0.00–11.99	264.8	—	269.1	262.9	5.7
(s.e.)	(2.27)	—	(5.85)	(2.37)	(0.87)
unweighted Ns	145	4	40	101	145
12.00–15.99	276.9	280.3	277.2	272.4	29.2
(s.e.)	(1.63)	(3.85)	(1.66)	(2.05)	(1.39)
unweighted Ns	880	182	521	177	880
16.00–19.99	301.7	305.1	295.8	—	42.7
(s.e.)	(1.48)	(1.73)	(1.80)	—	(1.54)
unweighted Ns	1,309	855	431	23	1,309
20.00 or more	320.0	321.5	301.0	—	22.4
(s.e.)	(1.92)	(1.70)	(7.18)	—	(1.62)
unweighted Ns	727	677	45	5	727

Table 105—Average NAEP mathematics scores for public high school graduates by vocational credits earned, by selected curriculum characteristics: 1990—Continued

Curriculum characteristics	All students	Students earning varying numbers of vocational credits			Population distribution (percent)
		Less than 4.00	4.00-7.99	8.00 or more	
Mathematics credits accumulated					
0.00-1.99	266.0	—	264.4	—	3.2
(s.e.)	(4.41)	—	(7.51)	—	(0.63)
unweighted Ns	81	20	37	24	81
2.00-2.99	276.2	287.1	274.4	266.1	22.6
(s.e.)	(1.48)	(2.45)	(1.87)	(1.93)	(1.40)
unweighted Ns	624	201	264	159	624
3.00 or more	303.9	312.3	291.3	276.6	74.2
(s.e.)	(1.58)	(1.50)	(1.63)	(3.29)	(1.35)
unweighted Ns	2,356	1,497	736	123	2,356
Highest mathematics course completed					
Trigonometry or higher[3]	326.0	329.3	314.3	—	33.2
(s.e.)	(1.49)	(1.33)	(3.31)	—	(1.93)
unweighted Ns	1,067	836	219	12	1,067
Algebra II	300.1	302.6	296.8	293.3	26.0
(s.e.)	(0.99)	(1.30)	(1.12)	(3.63)	(1.28)
unweighted Ns	769	467	263	39	769
Geometry	284.2	287.7	281.3	281.6	14.7
(s.e.)	(1.88)	(1.92)	(2.57)	(3.30)	(1.20)
unweighted Ns	472	216	206	50	472
Algebra I	270.0	270.6	269.7	270.0	10.9
(s.e.)	(1.45)	(3.09)	(2.02)	(2.22)	(0.92)
unweighted Ns	317	90	157	70	317
Less than algebra	256.4	257.9	255.5	256.4	15.2
(s.e.)	(1.32)	(2.59)	(2.00)	(2.04)	(0.90)
unweighted Ns	436	109	192	135	436

First row, first column reads: 1990 public high school graduates scored on average 296.4 on the NAEP mathematics assessment.
—Sample size was too small for a reliable estimate.
N/A means not applicable.

[1] Students meeting the criteria for both the college prep and vocational specializations are included in the college prep group. This classification differs from that included in the NELS tables, where students meeting both criteria were included in the vocational group.

[2] New Basics standards include 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, 2 years of a single foreign language, and one-half year of computer science. National Commission on Excellence in Education, *A Nation at Risk* (Cambridge, MA: USA Research, 1984).

[3] Precalculus and calculus are included in this category.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 1990 High School Transcript Study and 1990 National Assessment of Educational Progress 12th Grade Assessment File.

Table 106—Average NAEP mathematics scores for public high school graduates by vocational credits earned, by selected student characteristics: 1990

Student characteristics	All students	Students earning varying numbers of vocational credits			Population distribution (percent)
		Less than 4.00	4.00–7.99	8.00 or more	
Total	296.4	308.5	285.4	269.5	100.0
(s.e.)	(1.29)	(1.45)	(1.29)	(1.64)	N/A
unweighted Ns	3,061	1,718	1,037	306	3,061
Sex					
Male	298.5	310.1	289.9	271.6	48.1
(s.e.)	(1.53)	(1.80)	(1.45)	(2.00)	(0.92)
unweighted Ns	1,445	793	488	164	1,445
Female	294.6	307.2	281.3	266.6	51.9
(s.e.)	(1.43)	(1.56)	(1.79)	(2.49)	(0.92)
unweighted Ns	1,616	925	549	142	1,616
Race-ethnicity*					
White, non-Hispanic	302.0	314.1	291.2	272.8	74.4
(s.e.)	(1.30)	(1.51)	(1.27)	(1.83)	(0.63)
unweighted Ns	2,236	1,286	711	239	2,236
Black, non-Hispanic	272.1	281.9	265.1	253.0	14.5
(s.e.)	(2.01)	(2.37)	(2.78)	(4.95)	(0.52)
unweighted Ns	440	216	184	40	440
Hispanic	279.4	288.2	271.0	—	7.4
(s.e.)	(2.92)	(3.47)	(3.56)	—	(0.46)
unweighted Ns	255	133	96	26	255
Asian/Pacific Islander	316.9	323.9	304.0	—	3.1
(s.e.)	(5.51)	(4.23)	(5.39)	—	(0.32)
unweighted Ns	108	74	34	0	108
Parents' educational attainment					
Less than high school graduate	273.2	282.6	271.1	264.1	7.3
(s.e.)	(2.42)	(3.92)	(2.90)	(4.72)	(0.76)
unweighted Ns	244	80	114	50	244
High school graduate	283.0	294.9	277.9	268.8	24.3
(s.e.)	(1.68)	(2.60)	(1.92)	(2.14)	(1.13)
unweighted Ns	708	290	303	115	708
Some postsecondary education	297.9	308.1	288.4	270.5	27.7
(s.e.)	(1.15)	(1.76)	(1.69)	(3.13)	(0.91)
unweighted Ns	831	470	297	64	831
Bachelor's degree or higher	309.1	316.9	295.7	274.1	40.7
(s.e.)	(1.62)	(1.79)	(1.99)	(2.65)	(1.28)
unweighted Ns	1,210	849	299	62	1,210

First row, first cloumn reads: 1990 public high school graduates scored on average 296.4 on the NAEP mathematics assessment.
—Sample size was too small for a reliable estimate.
N/A means not applicable.
*The number of Native Americans in the sample was too small for reliable estimates. The population distribution for race-ethnicity does not sum to 100 percent because Native Americans were not included in this table.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 1990 High School Transcript Study and 1990 National Assessment of Educational Progress 12th Grade Assessment File.

Table 107—Average number of credits earned by public high school graduates in vocational, academic, and personal use courses by NAEP mathematics assessment score quartiles, by selected curriculum characteristics: 1990

Curriculum characteristics	Credits earned in vocational courses					Credits earned in academic courses					Credits earned in personal use courses				
		NAEP score quartile					NAEP score quartile					NAEP score quartile			
	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%
Total	3.9	5.7	4.6	3.2	2.3	17.1	14.7	16.0	18.1	19.5	2.7	2.9	2.8	2.6	2.6
(s.e.)	(0.11)	(0.17)	(0.16)	(0.15)	(0.09)	(0.16)	(0.25)	(0.19)	(0.19)	(0.16)	(0.08)	(0.10)	(0.09)	(0.10)	(0.10)
unweighted Ns	3,061	776	727	780	778	3,061	776	727	780	778	3,061	776	727	780	778
Area of specialization[1]															
College prep	2.4	4.10	2.9	2.4	2.1	19.7	18.4	18.9	19.6	20.2	2.5	2.9	2.9	2.4	2.5
(s.e.)	(0.12)	(0.46)	(0.29)	(0.15)	(0.10)	(0.14)	(0.47)	(0.21)	(0.19)	(0.14)	(0.10)	(0.20)	(0.10)	(0.13)	(0.11)
unweighted Ns	1,076	36	163	358	519	1,076	36	163	358	519	1,076	36	163	358	519
Vocational	7.3	7.9	7.2	6.6	5.7	13.8	13.2	13.7	15.3	16.1	2.4	2.4	2.4	2.3	2.3
(s.e.)	(0.16)	(0.21)	(0.21)	(0.26)	(0.27)	(0.13)	(0.20)	(0.17)	(0.36)	(0.33)	(0.10)	(0.13)	(0.11)	(0.13)	(0.14)
unweighted Ns	656	318	209	96	33	656	318	209	96	33	656	318	209	96	33
Other	3.4	4.2	3.7	2.8	2.3	16.7	15.5	16.2	17.5	18.6	3.1	3.3	3.1	3.0	2.8
(s.e.)	(0.11)	(0.15)	(0.14)	(0.15)	(0.16)	(0.19)	(0.29)	(0.21)	(0.25)	(0.38)	(0.09)	(0.13)	(0.11)	(0.13)	(0.16)
unweighted Ns	1,329	422	355	326	226	1,329	422	355	326	226	1,329	422	355	326	226
Compliance with New Basics Standards[2]															
Met all standards	2.8	—	3.4	2.8	2.4	19.7	—	18.4	19.4	20.3	2.5	—	3.1	2.4	2.4
(s.e.)	(0.17)	—	(0.34)	(0.17)	(0.15)	(0.16)	—	(0.29)	(0.19)	(0.19)	(0.12)	—	(0.20)	(0.15)	(0.12)
unweighted Ns	483	18	64	156	245	483	18	64	156	245	483	18	64	156	245
Met English, math, science, and social studies standards	2.7	4.7	3.1	2.6	2.0	19.1	17.7	18.4	19.1	20.0	2.7	3.3	2.9	2.5	2.6
(s.e.)	(0.17)	(0.49)	(0.27)	(0.22)	(0.10)	(0.20)	(1.03)	(0.20)	(0.24)	(0.15)	(0.11)	(0.20)	(0.15)	(0.13)	(0.12)
unweighted Ns	870	123	174	270	303	870	123	174	270	303	870	123	174	270	303
Met English and math standards and had at least 2 years of science and social studies	4.2	5.1	4.6	3.5	3.2	16.5	15.4	16.0	17.4	17.8	2.9	2.9	2.9	3.0	2.6
(s.e.)	(0.18)	(0.26)	(0.28)	(0.24)	(0.22)	(0.23)	(0.26)	(0.28)	(0.38)	(0.30)	(0.11)	(0.15)	(0.13)	(0.18)	(0.22)
unweighted Ns	603	179	174	156	94	603	179	174	156	94	603	179	174	156	94
Met English standards and had at least 2 years of math, science, and social studies	5.0	5.6	5.2	3.6	—	15.4	14.4	15.2	17.5	—	2.7	2.9	2.6	2.5	—
(s.e.)	(0.18)	(0.19)	(0.26)	(0.38)	—	(0.19)	(0.20)	(0.19)	(0.46)	—	(0.13)	(0.14)	(0.19)	(0.17)	—
unweighted Ns	434	205	138	75	16	434	205	138	75	16	434	205	138	75	16
All other graduates	5.1	6.5	5.5	4.2	2.2	14.8	13.1	14.1	16.0	18.5	2.8	2.8	2.8	2.8	2.9
(s.e.)	(0.29)	(0.28)	(0.27)	(0.32)	(0.27)	(0.33)	(0.24)	(0.29)	(0.40)	(0.74)	(0.12)	(0.19)	(0.14)	(0.17)	(0.20)
unweighted Ns	671	251	177	123	120	671	251	177	123	120	671	251	177	123	120

Table 107—Average number of credits earned by public high school graduates in vocational, academic, and personal use courses by NAEP mathematics assessment score quartiles, by selected curriculum characteristics: 1990—Continued

	Credits earned in vocational courses					Credits earned in academic courses					Credits earned in personal use courses				
		NAEP score quartile					NAEP score quartile					NAEP score quartile			
Curriculum characteristics	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%
Academic credits accumulated															
0.00-11.99	8.8	9.1	8.2	—	—	10.5	10.4	10.6	—	—	2.5	2.6	2.4	—	—
(s.e.)	(0.29)	(0.32)	(0.48)	—	—	(0.10)	(0.10)	(0.16)	—	—	(0.20)	(0.27)	(0.24)	—	—
unweighted Ns	145	96	37	9	3	145	96	37	9	3	145	96	37	9	3
12.00-15.99	5.8	6.0	5.9	5.2	4.7	14.0	13.8	13.9	14.3	14.8	3.0	3.0	3.0	3.1	3.0
(s.e.)	(0.13)	(0.16)	(0.19)	(0.30)	(0.37)	(0.04)	(0.07)	(0.08)	(0.08)	(0.09)	(0.10)	(0.12)	(0.12)	(0.19)	(0.21)
unweighted Ns	880	416	288	142	34	880	416	288	142	34	880	416	288	142	34
16.00-19.99	3.3	3.8	3.4	3.2	2.8	17.7	17.3	17.4	17.8	18.1	2.8	3.0	2.8	2.7	2.7
(s.e.)	(0.11)	(0.20)	(0.16)	(0.15)	(0.11)	(0.03)	(0.08)	(0.07)	(0.06)	(0.08)	(0.10)	(0.12)	(0.11)	(0.12)	(0.13)
unweighted Ns	1,309	230	308	407	364	1,309	230	308	407	364	1,309	230	308	407	364
20.00 or more	1.6	4.1	1.8	1.5	1.5	21.6	23.0	21.2	21.7	21.6	2.4	3.3	2.5	2.2	2.4
(s.e.)	(0.13)	(1.58)	(0.18)	(0.11)	(0.08)	(0.14)	(2.41)	(0.17)	(0.13)	(0.10)	(0.11)	(0.47)	(0.14)	(0.12)	(0.12)
unweighted Ns	727	34	94	222	377	727	34	94	222	377	727	34	94	222	377
Vocational credits accumulated															
0.00-3.99	1.9	2.5	2.2	1.9	1.7	18.9	16.7	17.8	19.2	20.0	2.9	3.5	3.2	2.7	2.6
(s.e.)	(0.05)	(0.06)	(0.06)	(0.07)	(0.06)	(0.14)	(0.25)	(0.16)	(0.20)	(0.16)	(0.10)	(0.13)	(0.11)	(0.14)	(0.11)
unweighted Ns	1,718	221	328	532	637	1,718	221	328	532	637	1,718	221	328	532	637
4.00-7.99	5.4	5.7	5.5	5.2	4.9	15.5	14.6	15.2	16.3	17.3	2.7	2.9	2.7	2.5	2.5
(s.e.)	(0.04)	(0.06)	(0.07)	(0.08)	(0.09)	(0.18)	(0.22)	(0.24)	(0.24)	(0.23)	(0.10)	(0.14)	(0.11)	(0.13)	(0.14)
unweighted Ns	1,037	382	302	217	136	1,037	382	302	217	136	1,037	382	302	217	136
8.00 or more	9.6	9.8	9.3	9.5	—	12.6	12.4	12.6	13.5	—	2.1	2.2	2.1	2.1	—
(s.e.)	(0.13)	(0.19)	(0.13)	(0.37)	—	(0.33)	(0.51)	(0.29)	(0.35)	—	(0.12)	(0.16)	(0.13)	(0.21)	—
unweighted Ns	306	173	97	31	5	306	173	97	31	5	306	173	97	31	5
Mathematics credits accumulated															
0.00-1.99	6.2	6.5	—	—	—	12.5	12.3	—	—	—	2.8	2.8	—	—	—
(s.e.)	(0.63)	(0.75)	—	—	—	(0.65)	(0.70)	—	—	—	(0.27)	(0.39)	—	—	—
unweighted Ns	81	49	25	6	1	81	49	25	6	1	81	49	25	6	1
2.00-2.99	5.6	6.4	5.5	4.1	—	14.5	13.5	14.5	16.3	—	2.6	2.7	2.7	2.6	—
(s.e.)	(0.18)	(0.27)	(0.21)	(0.36)	—	(0.17)	(0.18)	(0.19)	(0.43)	—	(0.12)	(0.15)	(0.15)	(0.14)	—
unweighted Ns	624	303	200	94	27	624	303	200	94	27	624	303	200	94	27
3.00 or more	3.4	5.0	4.1	3.0	2.38	18.1	16.1	16.9	18.4	19.6	2.8	3.1	2.9	2.7	2.6
(s.e.)	(0.13)	(0.21)	(0.18)	(0.15)	(0.10)	(0.16)	(0.35)	(0.19)	(0.18)	(0.16)	(0.08)	(0.13)	(0.08)	(0.11)	(0.11)
unweighted Ns	2356	424	502	680	750	2356	424	502	680	750	2356	424	502	680	750

Table 107—Average number of credits earned by public high school graduates in vocational, academic, and personal use courses by NAEP mathematics assessment score quartiles, by selected curriculum characteristics: 1990—Continued

Curriculum characteristics	Credits earned in vocational courses					Credits earned in academic courses					Credits earned in personal use courses				
		NAEP score quartile					NAEP score quartile					NAEP score quartile			
	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%
Highest mathematics course completed															
Trigonometry or higher[3]	2.5	4.8	3.3	2.7	2.2	19.4	16.2	18.3	19.1	19.8	2.6	2.5	2.9	2.6	2.6
(s.e.)	(0.11)	(0.39)	(0.30)	(0.21)	(0.10)	(0.20)	(0.52)	(0.39)	(0.28)	(0.19)	(0.11)	(0.52)	(0.20)	(0.14)	(0.11)
unweighted Ns	1067	40	73	286	668	1067	40	73	286	668	1067	40	73	286	668
Algebra II	3.6	4.7	4.1	3.2	2.9	17.6	17.0	16.9	18.0	18.1	2.8	3.5	2.9	2.7	2.4
(s.e.)	(0.13)	(0.58)	(0.20)	(0.14)	(0.21)	(0.21)	(1.16)	(0.25)	(0.21)	(0.31)	(0.09)	(0.23)	(0.11)	(0.09)	(0.12)
unweighted Ns	769	62	252	364	91	769	62	252	364	91	769	62	252	364	91
Geometry	4.3	4.8	4.4	3.8	—	16.0	15.6	15.8	16.4	—	2.8	2.9	2.8	2.7	—
(s.e.)	(0.17)	(0.27)	(0.23)	(0.28)	—	(0.20)	(0.31)	(0.25)	(0.33)	—	(0.13)	(0.17)	(0.14)	(0.23)	—
unweighted Ns	472	132	219	105	16	472	132	219	105	16	472	132	219	105	16
Algebra I	5.5	5.5	5.7	—	—	15.1	15.3	14.5	—	—	2.7	2.8	2.7	—	—
(s.e.)	(0.21)	(0.26)	(0.26)	—	—	(0.25)	(0.34)	(0.33)	—	—	(0.10)	(0.14)	(0.14)	—	—
unweighted Ns	317	184	110	21	2	317	184	110	21	2	317	184	110	21	2
Less than algebra	6.3	6.3	3.0	—	—	13.6	13.6	13.5	—	—	2.9	2.9	2.7	—	—
(s.e.)	(0.21)	(0.22)	(0.33)	—	—	(0.22)	(0.23)	(0.33)	—	—	(0.14)	(0.15)	(0.18)	—	—
unweighted Ns	436	358	73	4	1	436	358	73	4	1	436	358	73	4	1

First row, first column reads: 1990 public high school graduates earned on average 3.9 credits in vocational courses.

—Sample size was too small for a reliable estimate.

N/A means not applicable.

[1] Students meeting the criteria for both the college prep and vocational specializations are included in the college prep group. This classification differs from that included in the NELS tables, where students meeting both criteria were included in the vocational group.

[2] New Basics standards include 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, 2 years of a single foreign language, and one-half year of computer science. National Commission on Excellence in Education, *A Nation at Risk* (Cambridge, MA: USA Research, 1984).

[3] Precalculus and calculus are included in this category.

NOTE: Quartile assessment score ranges are as follows: below 272, 272-296, 297-319, and 320 or higher.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 1990 High School Transcript Study and 1990 National Assessment of Educational Progress 12th Grade Assessment File.

Table 108—Average number of credits earned by public high school graduates in vocational, academic, and personal use courses by NAEP mathematics assessment score quartiles, by selected student characteristics: 1990

Student characteristics	Credits earned in vocational courses					Credits earned in academic courses					Credits earned in personal use courses				
		NAEP score quartile					NAEP score quartile					NAEP score quartile			
	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%
Total	3.9	5.7	4.6	3.2	2.3	17.1	14.7	16.0	18.1	19.5	2.7	2.9	2.8	2.6	2.6
(s.e.)	(0.11)	(0.17)	(0.16)	(0.15)	(0.09)	(0.16)	(0.25)	(0.19)	(0.19)	(0.16)	(0.08)	(0.10)	(0.09)	(0.10)	(0.10)
unweighted Ns	3,061	776	727	780	778	3,061	776	727	780	778	3,061	776	727	780	778
Sex															
Male	4.1	5.8	4.8	3.5	2.5	16.5	14.1	15.2	17.3	19.1	2.9	3.1	3.0	2.9	2.6
(s.e.)	(0.13)	(0.20)	(0.19)	(0.22)	(0.12)	(0.17)	(0.20)	(0.21)	(0.26)	(0.17)	(0.09)	(0.13)	(0.12)	(0.13)	(0.11)
unweighted Ns	1,445	371	318	345	411	1,445	371	318	345	411	1,445	371	318	345	411
Female	3.8	5.6	4.4	2.9	2.1	17.6	15.2	16.6	18.7	20.0	2.6	2.7	2.7	2.4	2.6
(s.e.)	(0.12)	(0.21)	(0.17)	(0.14)	(0.11)	(0.17)	(0.37)	(0.19)	(0.19)	(0.21)	(0.09)	(0.11)	(0.10)	(0.10)	(0.12)
unweighted Ns	1,616	405	409	435	367	1,616	405	409	435	367	1,616	405	409	435	367
Race-ethnicity*															
White, non-Hispanic	3.9	6.2	4.8	3.3	2.3	17.1	13.9	15.5	18.0	19.5	2.6	2.7	2.8	2.6	2.6
(s.e.)	(0.13)	(0.24)	(0.19)	(0.18)	(0.08)	(0.18)	(0.24)	(0.22)	(0.22)	(0.19)	(0.09)	(0.14)	(0.10)	(0.10)	(0.10)
unweighted Ns	2,236	410	518	640	668	2,236	410	518	640	668	2,236	410	518	640	668
Black, non-Hispanic	4.3	5.3	3.8	2.6	—	17.0	15.9	17.5	19.2	—	3.0	3.1	2.9	3.0	—
(s.e.)	(0.23)	(0.27)	(0.34)	(0.20)	—	(0.33)	(0.58)	(0.26)	(0.37)	—	(0.15)	(0.18)	(0.16)	(0.29)	—
unweighted Ns	440	228	126	65	21	440	228	126	65	21	440	228	126	65	21
Hispanic	3.9	4.7	3.9	2.9	—	16.7	15.3	17.2	17.7	—	3.3	3.5	3.2	3.0	—
(s.e.)	(0.19)	(0.32)	(0.33)	(0.35)	—	(0.40)	(0.42)	(0.50)	(0.51)	—	(0.17)	(0.25)	(0.19)	(0.28)	—
unweighted Ns	255	119	64	43	29	255	119	64	43	29	255	119	64	43	29
Asian/ Pacific Islander	2.9	—	—	—	2.3	18.7	—	—	—	20.1	2.8	—	—	—	2.7
(s.e.)	(0.66)	—	—	—	(0.54)	(0.57)	—	—	—	(0.26)	(0.36)	—	—	—	(0.39)
unweighted Ns	108	15	12	26	55	108	15	12	26	55	108	15	12	26	55

Table 108—Average number of credits earned by public high school graduates in vocational, academic, and personal use courses by NAEP mathematics assessment score quartiles, by selected student characteristics: 1990—Continued

Student characteristics	Credits earned in vocational courses					Credits earned in academic courses					Credits earned in personal use courses				
		NAEP score quartile					NAEP score quartile					NAEP score quartile			
	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%	All students	Bottom 25%	2nd 25%	3rd 25%	Top 25%
Parents' educational attainment															
Less than high school graduate	5.4	6.2	4.8	—	—	15.3	14.1	16.1	—	—	2.7	2.7	2.7	—	—
(s.e.)	(0.23)	(0.34)	(0.27)	—	—	(0.29)	(0.38)	(0.41)	—	—	(0.13)	(0.18)	(0.18)	—	—
unweighted Ns	244	129	67	27	21	244	129	67	27	21	244	129	67	27	21
High school graduate	5.0	6.0	5.3	3.6	2.8	15.9	14.3	15.3	18.2	18.8	2.7	3.0	2.6	2.4	2.4
(s.e.)	(0.17)	(0.20)	(0.24)	(0.30)	(0.21)	(0.21)	(0.29)	(0.24)	(0.33)	(0.34)	(0.12)	(0.14)	(0.15)	(0.16)	(0.18)
unweighted Ns	708	257	225	148	78	708	257	225	148	78	708	257	225	148	78
Some postsecondary education	3.8	5.5	4.1	3.5	2.4	17.1	15.0	16.1	17.4	19.4	2.8	2.8	3.1	2.8	2.5
(s.e.)	(0.11)	(0.23)	(0.24)	(0.19)	(0.11)	(0.16)	(0.27)	(0.25)	(0.24)	(0.22)	(0.09)	(0.13)	(0.15)	(0.12)	(0.14)
unweighted Ns	831	183	198	254	196	831	183	198	254	196	831	183	198	254	196
Bachelor's degree or higher	3.1	5.2	4.2	2.7	2.1	18.2	15.3	16.5	18.6	19.8	2.7	3.0	2.9	2.6	2.6
(s.e.)	(0.13)	(0.25)	(0.25)	(0.15)	(0.12)	(0.17)	(0.33)	(0.23)	(0.21)	(0.19)	(0.10)	(0.17)	(0.13)	(0.11)	(0.11)
unweighted Ns	1,210	168	221	343	478	1,210	168	221	343	478	1,210	168	221	343	478

First row, first column reads: 1990 public high school graduates earned on average 3.9 credits in vocational courses.
—Sample size was too small for a reliable estimate.
*The number of Native Americans in the sample was too small for reliable estimates.

NOTE: Quartile assessment score ranges are as follows: below 272, 272-296, 297-319, and 320 or higher.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress, 1990 High School Transcript Study and 1990 National Assessment of Educational Progress 12th Grade Assessment File.

Table 109—Percentage distribution of U.S. population 18–34 years old by postsecondary completion status and type of postsecondary award, by selected demographic characteristics: Summer 1990

Selected demographic characteristics	Never attended postsecondary	Current student[1]	Non-completer[2]	Completer[3]	Un-weighted Ns	Completers[3]				Un-weighted Ns
							A.A. or Certificate			
						B.A. or higher	Total	Vocational[4]	Non-vocational	
Total	50.3	17.0	11.7	20.9		68.8	31.2	26.8	4.4	
(s.e.)	(0.44)	(0.33)	(0.28)	(0.36)	10,237	(0.91)	(0.91)	(0.87)	(0.40)	2,100
Age										
18-24 years	54.1	31.1	8.6	6.2		54.1	45.9	43.0	2.9	
(s.e.)	(0.79)	(0.73)	(0.44)	(0.38)	3,384	(3.15)	(3.15)	(3.13)	(1.06)	205
25-34 years	48.6	10.4	13.1	27.9		70.3	29.7	25.1	4.6	
(s.e.)	(0.54)	(0.33)	(0.36)	(0.48)	6,853	(0.94)	(0.94)	(0.89)	(0.43)	1,895
Sex										
Male	51.3	16.8	11.8	20.0		73.1	26.9	22.9	4.0	
(s.e.)	(0.65)	(0.48)	(0.42)	(0.52)	4,708	(1.29)	(1.29)	(1.22)	(0.57)	938
Female	49.5	17.2	11.6	21.7		65.3	34.7	29.9	4.8	
(s.e.)	(0.62)	(0.47)	(0.39)	(0.51)	5,529	(1.25)	(1.25)	(1.20)	(0.56)	1,162
Race-ethnicity										
White, non-Hispanic	47.0	18.0	11.6	23.4		68.7	31.3	26.9	4.4	
(s.e.)	(0.52)	(0.40)	(0.33)	(0.44)	7,692	(1.01)	(1.01)	(0.97)	(0.45)	1,793
Minority, total	62.7	13.4	11.9	12.1		69.4	30.6	26.1	4.5	
(s.e.)	(0.93)	(0.66)	(0.62)	(0.63)	2,545	(2.55)	(2.55)	(2.43)	(1.15)	307
Black, non-Hispanic	64.2	13.4	13.6	8.8		60.9	39.1	34.3	4.8	
(s.e.)	(1.15)	(0.82)	(0.82)	(0.68)	1,065	(3.98)	(3.98)	(3.87)	(1.74)	98
Hispanic	68.8	10.8	9.9	10.6		68.1	31.9	26.1	5.9	
(s.e.)	(1.42)	(0.95)	(0.92)	(0.94)	1,124	(4.39)	(4.39)	(4.14)	(2.22)	111
Asian	38.4	20.9	12.7	27.9		80.8	19.2	17.0	2.2	
(s.e.)	(2.61)	(2.19)	(1.79)	(2.41)	299	(4.00)	(4.00)	(3.81)	(1.49)	90
Native American	60.9	15.6	7.5	16.0		—	—	—	—	
(s.e.)	(6.33)	(4.70)	(3.41)	(4.75)	57	—	—	—	—	8

First row, first column reads: Of all persons aged 18-34 in summer 1990, 50.3 percent had never attended a postsecondary institution.

—Sample size was too small for reliable estimate.

[1] Some current students had previously attained a postsecondary degree or certificate.

[2] Noncompleters are defined as persons who attended a postsecondary institution but did not receive a degree or certificate and are not current students.

[3] Completers are defined as persons who attained a postsecondary degree or certificate and are not current students.

[4] Vocational completers are defined as postsecondary completers who earned an associate's degree or a certificate in a vocational field.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation, 1990 Panel.

Table 110—Percentage distribution of U.S. population 18-34 years old by employment status, by postsecondary completion status and type of award by sex: Summer 1990

Postsecondary completion status and type of award	Population		Employed persons		
	Percent employed[1]	Un-weighted Ns	Full time[2]	Part time[3]	Un-weighted Ns
All persons					
Total	77.4		81.3	18.7	
(s.e.)	(0.36)	10,143	(0.37)	(0.37)	7,795
Never attended postsecondary	72.3		81.4	18.6	
(s.e.)	(0.54)	5,132	(0.54)	(0.54)	3,671
Current student[4]	73.8		61.9	38.1	
(s.e.)	(0.90)	1,687	(1.17)	(1.17)	1,237
Noncompleter[5]	82.1		88.2	11.8	
(s.e.)	(0.95)	1,208	(0.88)	(0.88)	983
Completer, total[6]	89.9		90.5	9.5	
(s.e.)	(0.55)	2,088	(0.57)	(0.57)	1,883
Bachelor's degree or higher	91.4		91.6	8.4	
(s.e.)	(0.62)	1,451	(0.65)	(0.65)	1,329
Associate's degree or certificate, total	86.6		87.8	12.2	
(s.e.)	(1.10)	637	(1.14)	(1.14)	554
Vocational[7]	86.1		87.2	12.8	
(s.e.)	(1.24)	549	(1.29)	(1.29)	478
Nonvocational	89.2		91.1	8.9	
(s.e.)	(2.36)	88	(2.32)	(2.32)	76
Males					
Total	86.6		87.7	12.3	
(s.e.)	(0.42)	4,647	(0.44)	(0.44)	4,025
Never attended postsecondary	84.2		88.3	11.7	
(s.e.)	(0.63)	2,397	(0.61)	(0.61)	2,014
Current student[4]	75.1		66.4	33.6	
(s.e.)	(1.31)	761	(1.66)	(1.66)	575
Noncompleter[5]	94.7		92.4	7.6	
(s.e.)	(0.81)	542	(0.98)	(0.98)	512
Completer, total[6]	97.6		97.2	2.8	
(s.e.)	(0.42)	933	(0.46)	(0.46)	913
Bachelor's degree or higher	98.6		97.5	2.5	
(s.e.)	(0.38)	699	(0.51)	(0.51)	689
Associate's degree or certificate, total	94.7		96.3	3.7	
(s.e.)	(1.16)	234	(1.01)	(1.01)	224
Vocational[7]	94.0		96.8	3.2	
(s.e.)	(1.37)	200	(1.04)	(1.04)	191
Nonvocational	98.9		93.5	6.5	
(s.e.)	(1.25)	34	(3.04)	(3.04)	33

Table 110—Percentage distribution of U.S. population 18–34 years old by employment status, by postsecondary completion status and type of award by sex: Summer 1990—Continued

	Population		Employed persons		
Postsecondary completion status and type of award	Percent employed[1]	Un-weighted Ns	Full time[2]	Part time[3]	Un-weighted Ns
Females					
Total	69.4		74.3	25.7	
(s.e.)	(0.54)	5,496	(0.61)	(0.61)	3,770
Never attended postsecondary	61.5		72.8	27.2	
(s.e.)	(0.80)	2,735	(0.93)	(0.93)	1,657
Current student[4]	72.6		57.9	42.1	
(s.e.)	(1.26)	926	(1.62)	(1.62)	662
Noncompleter[5]	70.9		83.2	16.8	
(s.e.)	(1.54)	666	(1.51)	(1.51)	
Completer, total[6]	83.7		84.1	15.9	
(s.e.)	(0.91)	1,155	(0.98)	(0.98)	970
Bachelor's degree or higher	85.0		85.4	14.6	
(s.e.)	(1.10)	752	(1.17)	(1.17)	640
Associate's degree or certificate, total	81.4		81.5	18.5	
(s.e.)	(1.61)	403	(1.78)	(1.78)	330
Vocational[7]	81.2		80.2	19.8	
(s.e.)	(1.78)	349	(2.02)	(2.02)	287
Nonvocational	82.8		89.1	10.9	
(s.e.)	(3.71)	54	(3.38)	(3.38)	43

First row, first column reads: In summer 1990, 77.4 percent of persons aged 18-34 were employed.

[1] SIPP respondents are defined as employed if they indicated they had worked at least once during the month prior to their interview in summer 1990.

[2] SIPP respondents are defined as employed full time if they indicated they had worked an average of 35 or more hours per week during the 4-month period prior to their interview in summer 1990.

[3] SIPP respondents are defined as employed part time if they had worked an average of less than 35 hours per week during the 4-month period prior to their interview in summer 1990.

[4] Some current students had previously attained a postsecondary degree or certificate.

[5] Noncompleters are defined as persons who attended a postsecondary institution but did not receive a degree or certificate and are not current students.

[6] Completers are defined as persons who attained a postsecondary degree or certificate and are not current students.

[7] Vocational completers are defined as postsecondary completers who earned an associate's degree or a certificate in a vocational field.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation, 1990 Panel.

Table 111—Percentage of employed postsecondary vocational completers 18–34 years old working in a field related to training, by employment status and selected demographic characteristics: Summer 1990

Selected demographic characteristics	Employed in a field related to training[1]	Unweighted Ns
All employed postsecondary vocational completers[2,3]		
Total	50.8	
(s.e.)	(1.93)	475
Age		
18–24 years	60.1	
(s.e)	(4.82)	79
25–34 years	49.1	
(s.e.)	(2.10)	396
Sex		
Male	49.5	
(s.e.)	(2.96)	191
Female	51.8	
(s.e.)	(2.54)	284
Minority status		
White, non-Hispanic	51.9	
(s.e.)	(2.05)	407
Minority	42.8	
(s.e.)	(5.57)	68
Vocational completers employed full time[4]		
Total	50.4	
(s.e.)	(2.07)	411
Age		
18–24 years	61.3	
(s.e.)	(5.16)	67
25–34 years	48.4	
(s.e.)	(2.24)	344
Sex		
Male	50.3	
(s.e.)	(3.02)	182
Female	50.4	
(s.e.)	(2.85)	229
Minority status		
White, non-Hispanic	51.6	
(s.e.)	(2.21)	349
Minority	41.5	
(s.e.)	(5.78)	62

Table 111—Percentage of employed postsecondary vocational completers 18–34 years old working in a field related to training, by employment status and selected demographic characteristics: Summer 1990—Continued

Selected demographic characteristics	Employed in a field related to training	Unweighted Ns
	Vocational completers employed part time[4]	
Total	54.7	
(s.e.)	(5.29)	64
Age		
18–24 years	—	
(s.e.)	—	12
25–34 years	55.0	
(s.e.)	(5.79)	52
Sex		
Male	—	
(s.e.)	—	9
Female	57.5	
(s.e.)	(5.60)	55
Minority status		
White, Non-Hispanic	54.6	
(s.e.)	(5.51)	58
Minority	—	
(s.e.)	—	6

First row, first column reads: In summer 1990, 50.8 percent of all employed vocational postsecondary completers aged 18–34 were employed in a field related to their training.

—Sample size was too small for reliable estimate.

[1] Persons employed in a field related to their training are those whose postsecondary vocational field of study was related to their occupation during summer 1990.

[2] Vocational completers are defined as postsecondary completers who earned an associate's degree or certificate in a vocational field.

[3] SIPP respondents are defined as employed if they indicated they had worked at least once during the month prior to their interview in summer 1990.

[4] SIPP respondents are defined as employed full time if they met the definition of employed in footnote 3 and indicated they had worked an average of 35 or more hours per week during the 4-month period prior to their interview in summer 1990. Part-time workers met the definition of employed in footnote 3 and had worked an average of less than 35 hours per week during the same 4-month period.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation, 1990 Panel.

Table 112—Percentage of postsecondary vocational completers 18-34 years old employed in summer 1990 by the number of sampling periods they were employed between summer 1990 and winter 1992, by relatedness of employment to training, by employment status, sex, and age

Employment status, sex, age, and relatedness of employment to training[1]	1-2 sampling periods[2]	3-5 sampling periods[2]	6 sampling periods[2]	Un-weighted Ns
		Employed vocational completers[3,4]		
Total	4.7	17.2	78.1	
(s.e.)	(0.81)	(1.44)	(1.58)	482
In field related to training	3.1	17.5	79.4	
(s.e.)	(0.94)	(2.05)	(2.19)	245
In field unrelated to training	6.3	16.9	76.8	
(s.e.)	(1.31)	(2.01)	(2.27)	237
Employed full time[5]	4.3	15.4	80.3	
(s.e.)	(0.83)	(1.47)	(1.62)	420
In field related to training	3.1	16.3	80.6	
(s.e.)	(1.01)	(2.15)	(2.30)	213
In field unrelated to training	5.5	14.7	79.8	
(s.e.)	(1.30)	(2.03)	(2.30)	207
Employed part time[5]	7.1	29.4	63.5	
(s.e.)	(2.78)	(4.93)	(5.21)	62
In field related to training	3.0	25.4	71.6	
(s.e.)	(2.52)	(6.43)	(6.66)	32
In field unrelated to training	—	—	—	
(s.e.)	—	—	—	30
Male	1.5	16.1	82.4	
(s.e.)	(0.71)	(2.15)	(2.23)	193
In field related to training	1.6	18.0	80.4	
(s.e.)	(1.06)	(3.23)	(3.34)	96
In field unrelated to training	1.4	14.2	84.4	
(s.e.)	(0.96)	(2.85)	(2.96)	97
Female	7.0	18.0	75.0	
(s.e.)	(1.28)	(1.93)	(2.18)	289
In field related to training	4.1	17.2	78.7	
(s.e.)	(1.40)	(2.67)	(2.90)	149
In field unrelated to training	10.1	18.9	71.0	
(s.e.)	(2.15)	(2.80)	(3.24)	140

Table 112—Percentage of postsecondary vocational completers 18–34 years old employed in summer 1990 by the number of sampling periods they were employed between summer 1990 and winter 1992, by relatedness of employment to training, by employment status, sex, and age—Continued

Employment status, sex, age, and relatedness of employment to training[1]	1–2 sampling periods[2]	3–5 sampling periods[2]	6 sampling periods[2]	Un-weighted Ns
Age 18–24	2.4	32.6	65.0	
(s.e.)	(1.49)	(4.55)	(4.63)	81
In field related to training	1.6	36.4	62.0	
(s.e.)	(1.59)	(6.10)	(6.16)	46
In field unrelated to training	3.6	27.2	69.2	
(s.e.)	(2.82)	(6.73)	(6.98)	35
Age 25–34	5.1	14.4	80.5	
(s.e.)	(0.91)	(1.45)	(1.64)	401
In field related to training	3.4	13.3	83.3	
(s.e.)	(1.09)	(2.04)	(2.24)	199
In field unrelated to training	6.7	15.4	77.9	
(s.e.)	(1.44)	(2.08)	(2.39)	202

First row, first column reads: Of all employed vocational postsecondary completers aged 18–34 in summer 1990, 4.7 percent were employed during one or two of the six possible sampling periods between summer 1990 and winter 1992.

—Sample size was too small for reliable estimate.

[1] Persons employed in a field related to their training are those whose postsecondary vocational field of study was related to their occupation during summer 1990.

[2] A sampling period covers 4 months. SIPP respondents were interviewed six times between summer 1990 and winter 1992 covering six sampling periods.

[3] Vocational completers are defined as postsecondary completers who earned an associate's degree or certificate in a vocational field.

[4] SIPP respondents are defined as employed if they indicated they had worked at least once during the month prior to their interview in summer 1990.

[5] SIPP respondents are defined as employed full time if they met the definition of employed in footnote 4 and indicated they had worked an average of 35 or more hours per week during the 4-month period prior to their interview in summer 1990. Part-time workers met the definition of employed in footnote 4 and had worked an average of less than 35 hours per week during the same 4-month period.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation, 1990 Panel.

Table 113—Percentage of employed postsecondary vocational completers 18-34 years old by employment status and monthly earnings, by relatedness of employment to training, sex and age: Summer 1990 (December 1992 dollars)

Sex, age, and relatedness of employment to training[4]	All employed vocational completers[1,2]			Unweighted Ns	Vocational completers employed full time[3]			Unweighted Ns	Vocational completers employed part time[3]			Unweighted Ns
	Under $1,100	$1,100-2,000	Over $2,000		Under $1,100	$1,100-2,000	Over $2,000		Under $1,100	$1,100-2,000	Over $2,000	
Employed vocational completers												
Total	21.1	44.1	34.8		16.0	46.0	38.0		55.8	31.2	13.0	
(s.e.)	(1.57)	(1.92)	(1.84)	475	(1.52)	(2.06)	(2.01)	411	(5.28)	(4.92)	(3.57)	64
In field related to training	17.4	43.6	39.0		13.6	44.4	42.0		42.6	36.6	20.8	
(s.e.)	(2.05)	(2.68)	(2.64)	246	(1.99)	(2.89)	(2.87)	213	(7.18)	(6.99)	(5.89)	33
In field unrelated to training	25.0	44.6	30.4		18.5	47.7	33.8		71.8	24.7	3.5	
(s.e.)	(2.38)	(2.74)	(2.53)	229	(2.28)	(2.94)	(2.78)	198	(7.03)	(6.74)	(2.87)	31
Male	10.2	40.0	49.8		8.6	40.6	50.8		—	—	—	
(s.e.)	(1.79)	(2.90)	(2.96)	191	(1.69)	(2.97)	(3.02)	182	—	—	—	9
In field related to training	11.5	41.0	47.5		9.6	41.9	48.5		—	—	—	
(s.e.)	(2.68)	(4.14)	(4.20)	96	(2.51)	(4.20)	(4.25)	93	—	—	—	3
In field unrelated to training	8.9	38.9	52.2		7.5	39.3	53.2		—	—	—	
(s.e.)	(2.38)	(4.07)	(4.17)	95	(2.26)	(4.19)	(4.28)	89	—	—	—	6
Female	29.2	47.1	23.7		22.6	50.8	26.6		55.5	31.7	12.8	
(s.e.)	(2.31)	(2.54)	(2.17)	284	(2.38)	(2.85)	(2.52)	229	(5.63)	(5.27)	(3.78)	55
In field related to training	21.6	45.4	33.0		17.1	46.6	36.3		38.7	39.0	22.3	
(s.e.)	(2.90)	(3.51)	(3.32)	150	(3.01)	(3.99)	(3.85)	120	(7.32)	(7.33)	(6.25)	30
In field unrelated to training	37.3	48.9	13.8		28.3	55.0	16.7		—	—	—	
(s.e.)	(3.53)	(3.65)	(2.52)	134	(3.63)	(4.01)	(3.01)	109	—	—	—	25

Table 113—Percentage of employed postsecondary vocational completers 18–34 years old by employment status and monthly earnings, by relatedness of employment to training, sex and age: Summer 1990 (December 1992 dollars)—Continued

Sex, age, and relatedness of employment to training[4]	All employed vocational completers[1,2]			Un-weighted Ns	Vocational completers employed full time[3]			Un-weighted Ns	Vocational completers employed part time[3]			Un-weighted Ns
	Under $1,100	$1,100-2,000	Over $2,000		Under $1,100	$1,100-2,000	Over $2,000		Under $1,100	$1,100-2,000	Over $2,000	
Age 18-24	33.4	50.2	16.4		26.8	54.1	19.1		—	—	—	
(s.e.)	(4.64)	(4.92)	(3.64)	79	(4.69)	(5.28)	(4.16)	67	—	—	—	12
In field related to training	28.7	52.4	18.9		25.6	52.8	21.6		—	—	—	
(s.e.)	(5.74)	(6.33)	(4.96)	46	(5.91)	(6.76)	(5.57)	40	—	—	—	6
In field unrelated to training	40.5	46.9	12.6		—	—	—		—	—	—	
(s.e.)	(7.64)	(7.76)	(5.16)	33	—	—	—	27	—	—	—	6
Age 25-34	18.9	43.0	38.1		14.1	44.6	41.3		52.1	32.2	15.7	
(s.e.)	(1.65)	(2.08)	(2.04)	396	(1.56)	(2.23)	(2.21)	344	(5.81)	(5.44)	(4.23)	52
In field related to training	14.9	41.6	43.5		10.8	42.5	46.7		—	—	—	
(s.e.)	(2.13)	(2.95)	(2.96)	200	(2.00)	(3.19)	(3.22)	173	—	—	—	27
In field unrelated to training	22.7	44.3	33.0		17.2	46.5	36.3		—	—	—	
(s.e.)	(2.46)	(2.92)	(2.77)	196	(2.36)	(3.12)	(3.01)	171	—	—	—	25

First row, first column reads: In summer 1990, 21.1 percent of all employed vocational postsecondary completers aged 18–34 earned a monthly salary of less than $1,100 in December 1992 dollars.

—Sample size was too small for reliable estimate.

[1] Vocational completers are defined as postsecondary completers who earned an associate's degree or certificate in a vocational field.

[2] SIPP respondents are defined as employed if they indicated they had worked at least once during the month prior to their interview in summer 1990.

[3] SIPP respondents are defined as employed full time if they met the definition of employed in footnote 2 and indicated they had worked an average of 35 or more hours per week during the 4-month period prior to their interview in summer 1990. Part-time workers met the definition of employed in footnote 2 and had worked an average of less than 35 hours per week during the same 4-month period.

[4] Persons employed in a field related to their training are those whose postsecondary vocational field of study was related to their occupation during summer 1990.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Survey of Income and Program Participation, 1990 Panel.

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Table 114—Percentage of public school teachers of grades 9 through 12 by type of teaching assignment and type of school, by selected demographic characteristics: 1990–91

			Vocational teachers[1]			
Selected demographic characteristics	All teachers	Non-vocational teachers	Total	Comprehensive high schools	Vocational schools	Other high schools[2]
Total	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	23,650	19,266	4,384	3,374	661	185
Sex						
Male	48.6	48.0	51.7	49.5	68.6	55.1
(s.e.)	(0.49)	(0.54)	(1.11)	(1.31)	(2.74)	(4.54)
Female	51.4	52.0	48.3	50.5	31.4	44.9
(s.e.)	(0.49)	(0.54)	(1.11)	(1.31)	(2.74)	(4.54)
Race-ethnicity						
White, non-Hispanic	89.1	89.4	87.8	87.9	90.3	83.7
(s.e.)	(0.41)	(0.47)	(0.63)	(0.69)	(1.77)	(3.59)
Black, non-Hispanic	6.6	6.1	8.7	8.6	7.0	11.1
(s.e.)	(0.42)	(0.51)	(0.53)	(0.51)	(1.56)	(3.44)
Hispanic	2.8	3.0	2.0	2.1	1.4	1.6
(s.e.)	(0.18)	(0.20)	(0.35)	(0.44)	(0.58)	(1.47)
Asian	0.8	0.8	0.7	0.7	0.4	1.1
(s.e.)	(0.06)	(0.07)	(0.08)	(0.07)	(0.36)	(0.45)
Native American	0.7	0.7	0.9	0.8	0.8	2.5
(s.e.)	(0.06)	(0.06)	(0.23)	(0.26)	(0.39)	(1.49)
Age						
Under 30 years	11.0	11.5	8.4	9.0	5.1	7.6
(s.e.)	(0.34)	(0.38)	(0.60)	(0.65)	(0.85)	(2.77)
30-39 years	26.9	27.3	24.8	25.2	23.5	21.7
(s.e.)	(0.37)	(0.47)	(0.72)	(0.81)	(1.41)	(4.77)
40-49 years	41.1	41.4	39.6	39.5	40.4	40.4
(s.e.)	(0.47)	(0.54)	(0.93)	(0.99)	(2.06)	(4.52)
50 years or over	21.0	19.7	27.2	26.3	31.0	30.3
(s.e.)	(0.45)	(0.49)	(0.92)	(1.12)	(2.07)	(3.90)

Third row, first column reads: Of all public school teachers of grades 9 through 12 in 1990-91, 48.6 percent were male.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] Other high schools include high schools with a special program emphasis, special education high schools (primarily serving handicapped students), and alternative high schools (offering a curriculum designed to address the needs of students that typically cannot be met in a regular school).

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990-91 Schools and Staffing Survey.

Table 115—Percentage of public school teachers of grades 9 through 12 by type of teaching assignment and type of school, by selected teacher characteristics: 1990–91

Selected teacher characteristics	All teachers	Non-vocational teachers	Vocational teachers[1]			
			Total	Comprehensive high schools	Vocational schools	Other high schools[2]
Total	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	23,650	19,266	4,384	3,374	661	185
Highest degree						
Less than a bachelor's	1.7	0.3	8.3	4.1	43.5	7.9
(s.e.)	(0.14)	(0.05)	(0.71)	(0.45)	(2.53)	(2.75)
Bachelor's	45.4	45.3	45.5	47.2	30.2	46.7
(s.e.)	(0.58)	(0.69)	(0.97)	(1.03)	(1.72)	(5.45)
Master's	46.4	47.4	41.4	43.6	22.3	44.1
(s.e.)	(0.61)	(0.67)	(1.04)	(1.19)	(2.45)	(5.49)
Education specialist[3]	5.3	5.5	4.5	4.8	3.0	1.3
(s.e.)	(0.26)	(0.28)	(0.39)	(0.44)	(0.58)	(0.60)
Doctor's or first professional	1.3	1.5	0.3	0.3	1.1	0.0
(s.e.)	(0.11)	(0.12)	(0.12)	(0.12)	(0.66)	(0.00)
Major field of study (associate's or bachelor's degree)						
Mathematics and sciences	10.4	12.3	1.0	0.9	1.8	1.4
(s.e.)	(0.27)	(0.31)	(0.22)	(0.25)	(0.91)	(0.71)
Social sciences	8.7	10.0	1.9	2.0	1.5	1.6
(s.e.)	(0.32)	(0.36)	(0.33)	(0.38)	(0.57)	(0.78)
Letters and humanities	12.4	14.6	1.5	1.3	2.3	1.2
(s.e.)	(0.30)	(0.35)	(0.25)	(0.25)	(0.94)	(0.75)
Education						
General education	45.3	52.2	9.5	9.5	10.7	8.9
(s.e.)	(0.46)	(0.55)	(0.51)	(0.63)	(2.04)	(2.30)
Special education	4.0	4.7	0.1	0.1	0.4	0.9
(s.e.)	(0.15)	(0.19)	(0.06)	(0.06)	(0.29)	(0.64)
Vocational education	13.9	2.8	71.7	72.6	58.5	72.8
(s.e.)	(0.30)	(0.17)	(1.10)	(1.21)	(2.32)	(4.03)
Occupationally specific[4]	3.8	2.3	11.6	11.5	15.1	10.4
(s.e.)	(0.17)	(0.16)	(0.65)	(0.75)	(1.99)	(2.74)
Other[5]	1.4	1.1	2.7	2.2	9.7	2.9
(s.e.)	(0.10)	(0.11)	(0.33)	(0.32)	(1.78)	(1.42)
Age at which first began to teach full or part time						
25 years or under	69.8	71.3	62.6	67.1	31.2	48.0
(s.e.)	(0.43)	(0.50)	(1.24)	(1.24)	(2.79)	(4.96)
26–35 years	22.9	22.4	25.4	23.3	36.6	34.6
(s.e.)	(0.37)	(0.46)	(0.96)	(1.00)	(2.37)	(5.81)
36–45 years	6.0	5.2	9.9	8.0	25.2	14.3
(s.e.)	(0.21)	(0.22)	(0.67)	(0.74)	(1.64)	(3.51)
46–55 years	1.1	1.0	1.9	1.4	6.4	3.1
(s.e.)	(0.10)	(0.10)	(0.28)	(0.26)	(1.31)	(1.44)
Over 55 years	0.1	0.1	0.3	0.3	0.7	0.0
(s.e.)	(0.03)	(0.03)	(0.10)	(0.12)	(0.29)	(0.00)

Table 115—Percentage of public school teachers of grades 9 through 12 by type of teaching assignment and type of school, by selected teacher characteristics: 1990-91—Continued

Selected teacher characteristics	All teachers	Non-vocational teachers	Vocational teachers[1]			
			Total	Comprehensive high schools	Vocational schools	Other high schools[2]
Number of years of teaching experience						
Under 3 years	6.1	6.4	5.1	4.9	7.3	5.3
(s.e.)	(0.19)	(0.25)	(0.39)	(0.43)	(1.15)	(2.02)
3-9 years	21.4	21.6	20.5	20.0	27.2	24.4
(s.e.)	(0.42)	(0.48)	(0.84)	(0.97)	(2.27)	(4.94)
10-20 years	40.9	40.6	42.5	41.9	48.5	39.1
(s.e.)	(0.44)	(0.50)	(0.83)	(1.17)	(2.97)	(4.82)
Over 20 years	31.6	31.5	31.9	33.2	17.0	31.2
(s.e.)	(0.51)	(0.59)	(0.84)	(1.10)	(2.05)	(5.05)
Type of credential in primary assignment field						
None	2.2	2.4	1.0	0.9	1.6	0.7
(s.e.)	(0.15)	(0.17)	(0.24)	(0.23)	(0.75)	(0.48)
Standard state certificate	76.3	76.1	77.4	78.5	70.4	72.6
(s.e.)	(0.42)	(0.45)	(0.81)	(0.91)	(2.01)	(3.71)
Probationary certificate	2.6	2.7	2.1	2.1	1.4	4.2
(s.e.)	(0.15)	(0.17)	(0.28)	(0.32)	(0.45)	(1.70)
Temporary, provisional, or emergency certificate	3.1	3.0	3.9	3.0	9.6	4.8
(s.e.)	(0.16)	(0.19)	(0.37)	(0.37)	(1.26)	(1.48)
Other	15.9	15.9	15.7	15.5	17.0	17.6
(s.e.)	(0.34)	(0.36)	(0.70)	(0.75)	(1.93)	(3.46)

Third row, first column reads: Of all public school teachers of grades 9 through 12 in 1990-91, 1.7 percent had less than a bachelor's degree.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] Other high schools include high schools with a special program emphasis, special education high schools (primarily serving handicapped students), and alternative high schools (offering a curriculum designed to address the needs of students that typically cannot be met in a regular school).

[3] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

[4] Unlike the more general "vocational education" field of study, "occupationally specific" fields of study emphasize preparation in specific technical fields, such as computer and information sciences and health professions and occupations.

[5] Other fields of study include general studies, interdisciplinary studies, and educational administration.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990-91 Schools and Staffing Survey.

Table 116—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected demographic characteristics: 1990–91

Selected demographic characteristics	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	19,266	4,384	348	1,310	59	87	117	814	522	651	346	130
Sex												
Male	48.0	51.7	93.3	33.6	48.1	14.4	95.1	2.9	90.5	95.8	56.1	50.0
(s.e.)	(0.54)	(1.11)	(2.15)	(1.78)	(8.41)	(5.78)	(2.66)	(0.74)	(1.61)	(1.26)	(3.71)	(7.37)
Female	52.0	48.3	6.7	66.4	51.9	85.6	4.9	97.1	9.5	4.2	43.9	50.0
(s.e.)	(0.54)	(1.11)	(2.15)	(1.78)	(8.41)	(5.78)	(2.66)	(0.74)	(1.61)	(1.26)	(3.71)	(7.37)
Race-ethnicity												
White, non-Hispanic	89.4	87.8	92.3	86.0	87.7	85.4	85.0	87.2	91.0	90.2	83.3	91.5
(s.e.)	(0.47)	(0.63)	(2.08)	(1.17)	(5.10)	(6.31)	(7.91)	(1.79)	(1.45)	(1.84)	(2.63)	(4.28)
Black, non-Hispanic	6.1	8.7	4.8	10.5	9.6	5.4	13.3	9.4	6.0	6.0	13.1	3.5
(s.e.)	(0.51)	(0.53)	(1.24)	(1.04)	(4.81)	(2.59)	(7.99)	(1.56)	(1.14)	(1.39)	(2.55)	(1.60)
Hispanic	3.0	2.0	1.8	1.9	0.0	7.2	0.4	1.6	2.4	2.3	1.3	4.4
(s.e.)	(0.20)	(0.35)	(1.30)	(0.50)	(0.00)	(6.14)	(0.39)	(0.73)	(0.92)	(0.98)	(0.86)	(3.83)
Asian	0.8	0.7	0.7	0.7	2.7	0.0	1.2	0.4	0.1	1.3	0.5	0.4
(s.e.)	(0.07)	(0.08)	(0.59)	(0.15)	(1.43)	(0.00)	(0.47)	(0.18)	(0.10)	(0.32)	(0.29)	(0.44)
Native American	0.7	0.9	0.4	0.9	0.0	2.1	0.1	1.5	0.5	0.2	1.8	0.1
(s.e.)	(0.06)	(0.23)	(0.24)	(0.55)	(0.00)	(1.80)	(0.10)	(0.59)	(0.21)	(0.10)	(0.89)	(0.09)
Age												
Under 30 years	11.5	8.4	20.2	9.7	9.5	6.8	7.6	7.9	2.9	7.1	5.5	6.4
(s.e.)	(0.38)	(0.60)	(3.17)	(0.98)	(5.40)	(4.75)	(2.87)	(1.16)	(0.89)	(1.53)	(1.35)	(2.96)
30-39 years	27.3	24.8	36.0	21.6	24.9	28.3	17.2	32.8	21.9	22.5	22.2	21.3
(s.e.)	(0.47)	(0.72)	(3.97)	(1.41)	(6.35)	(4.76)	(3.98)	(2.00)	(2.18)	(1.98)	(2.47)	(3.31)
40-49 years	41.4	39.6	32.4	38.2	46.0	32.7	35.2	38.4	41.1	46.4	40.5	38.4
(s.e.)	(0.54)	(0.93)	(3.06)	(1.61)	(7.28)	(6.70)	(5.97)	(2.31)	(2.14)	(2.27)	(3.28)	(5.70)
50 years and over	19.7	27.2	11.5	30.5	19.6	32.3	39.9	21.0	34.1	24.0	31.8	33.9
(s.e.)	(0.49)	(0.92)	(2.18)	(1.70)	(6.35)	(7.06)	(6.97)	(1.71)	(2.68)	(2.13)	(3.49)	(5.99)

Third row, first column reads: Of all nonvocational public school teachers of grades 9 through 12 in 1990–91, 48.0 percent were male.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

Table 117—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected teacher characteristics: 1990-91

Selected teacher characteristics	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	19,266	4,384	348	1,310	59	87	117	814	522	651	346	130
Highest degree												
Less than a bachelor's	0.3	8.3	1.5	0.6	0.5	17.9	24.7	0.3	45.4	4.0	18.1	2.9
(s.e.)	(0.05)	(0.71)	(0.66)	(0.33)	(0.45)	(5.48)	(4.72)	(0.13)	(3.19)	(1.00)	(3.57)	(1.54)
Bachelor's	45.3	45.5	51.3	43.1	42.7	44.4	39.0	58.8	29.3	46.9	43.4	41.8
(s.e.)	(0.69)	(0.97)	(3.05)	(1.63)	(9.13)	(7.19)	(8.56)	(2.11)	(3.36)	(2.28)	(3.54)	(5.05)
Master's	47.4	41.4	42.7	50.4	47.5	26.1	33.1	37.9	21.8	44.8	32.2	51.7
(s.e.)	(0.67)	(1.04)	(3.23)	(1.77)	(9.52)	(7.84)	(7.46)	(2.09)	(2.21)	(2.23)	(3.12)	(5.08)
Education specialist[3]	5.5	4.5	3.9	5.6	9.2	11.6	3.2	2.7	3.3	4.3	4.8	3.6
(s.e.)	(0.28)	(0.39)	(1.18)	(0.88)	(2.99)	(6.01)	(1.97)	(0.55)	(1.02)	(1.11)	(1.00)	(1.95)
Doctor's or first professional	1.5	0.3	0.6	0.3	0.0	0.0	0.0	0.4	0.2	0.0	1.6	0.0
(s.e.)	(0.12)	(0.12)	(0.43)	(0.19)	(0.00)	(0.00)	(0.00)	(0.24)	(0.14)	(0.00)	(1.08)	(0.00)
Major field of study												
Mathematics and sciences	12.3	1.0	1.0	0.7	4.4	0.8	1.3	0.5	2.4	0.4	2.7	0.6
(s.e.)	(0.31)	(0.22)	(0.54)	(0.37)	(2.85)	(0.74)	(0.84)	(0.26)	(1.26)	(0.25)	(0.94)	(0.60)
Social sciences	10.0	1.9	0.2	2.3	8.3	0.0	5.8	0.6	3.0	0.9	4.4	0.2
(s.e.)	(0.36)	(0.33)	(0.23)	(0.67)	(4.48)	(0.00)	(5.14)	(0.29)	(1.16)	(0.33)	(2.08)	(0.26)
Letters and humanities	14.6	1.5	1.1	1.5	3.8	5.8	3.6	0.8	1.8	1.1	2.2	0.5
(s.e.)	(0.35)	(0.25)	(0.81)	(0.41)	(2.90)	(5.08)	(2.21)	(0.36)	(0.67)	(0.61)	(0.83)	(0.49)
Education												
General education	52.2	9.5	1.9	8.8	39.3	28.2	19.2	4.2	17.1	5.9	20.3	6.6
(s.e.)	(0.55)	(0.51)	(0.99)	(0.88)	(8.15)	(7.17)	(6.74)	(0.98)	(2.72)	(1.31)	(3.08)	(2.04)
Special education	4.7	0.1	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	1.2	0.0
(s.e.)	(0.19)	(0.06)	(0.00)	(0.00)	(2.64)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.52)	(0.00)
Vocational education	2.8	71.7	81.0	71.6	29.1	7.4	58.8	77.6	59.3	87.8	49.3	83.6
(s.e.)	(0.17)	(1.10)	(1.97)	(1.56)	(7.24)	(3.13)	(7.25)	(1.66)	(3.58)	(1.54)	(4.06)	(4.63)
Occupationally specific[4]	2.3	11.6	14.2	13.8	12.6	45.5	6.8	16.2	6.0	1.4	12.8	3.0
(s.e.)	(0.16)	(0.65)	(2.12)	(1.28)	(8.64)	(5.58)	(2.00)	(1.60)	(1.52)	(0.76)	(2.69)	(1.70)
Other[5]	1.1	2.7	0.6	1.4	0.0	12.3	4.4	0.0	10.6	2.5	7.1	5.4
(s.e.)	(0.11)	(0.33)	(0.60)	(0.55)	(0.00)	(4.25)	(2.28)	(0.00)	(2.19)	(0.85)	(2.14)	(3.87)

Table 117—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected teacher characteristics: 1990–91—Continued

Selected teacher characteristics	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Age at which first began to teach full or part time												
25 years or under	71.3	62.6	75.8	68.0	77.6	37.0	42.7	75.8	28.4	64.6	49.4	65.3
(s.e.)	(0.50)	(1.24)	(3.51)	(1.71)	(7.55)	(7.74)	(6.52)	(1.93)	(2.60)	(2.76)	(3.97)	(5.71)
26–35 years	22.4	25.4	19.9	23.1	20.8	32.1	38.8	16.8	39.6	27.1	29.5	27.7
(s.e.)	(0.46)	(0.96)	(3.23)	(1.51)	(7.53)	(7.26)	(6.49)	(1.63)	(2.80)	(2.63)	(3.19)	(5.63)
36–45 years	5.2	9.9	4.0	8.3	1.1	21.7	15.1	6.3	23.9	6.8	15.6	6.4
(s.e.)	(0.22)	(0.67)	(1.17)	(1.30)	(0.79)	(5.59)	(3.39)	(1.35)	(2.37)	(1.34)	(3.26)	(2.72)
46–55 years	1.0	1.9	0.3	0.5	0.5	6.2	3.4	1.0	7.2	1.0	5.1	0.6
(s.e.)	(0.10)	(0.28)	(0.28)	(0.20)	(0.64)	(6.06)	(1.52)	(0.48)	(1.62)	(0.41)	(1.51)	(0.46)
Over 55 years	0.1	0.3	0.0	0.1	0.0	2.9	0.0	0.0	0.9	0.5	0.4	0.0
(s.e.)	(0.03)	(0.10)	(0.00)	(0.06)	(0.00)	(3.34)	(0.00)	(0.01)	(0.41)	(0.44)	(0.24)	(0.00)
Number of years of teaching experience												
Under 3 years	6.4	5.1	5.0	6.5	2.9	11.4	6.6	4.5	5.4	3.0	3.4	6.0
(s.e.)	(0.25)	(0.39)	(1.09)	(0.90)	(1.73)	(4.95)	(2.75)	(0.94)	(1.14)	(0.80)	(1.16)	(2.05)
3–9 years	21.6	20.5	33.3	16.7	17.4	23.6	17.7	21.6	27.7	17.2	22.8	16.4
(s.e.)	(0.48)	(0.84)	(3.80)	(1.21)	(6.59)	(6.59)	(3.72)	(2.24)	(2.30)	(2.02)	(2.74)	(4.38)
10–20 years	40.6	42.5	37.5	40.0	45.8	52.9	36.6	47.7	43.5	41.1	46.8	38.0
(s.e.)	(0.50)	(0.83)	(4.16)	(1.82)	(8.34)	(7.91)	(6.92)	(2.42)	(2.83)	(2.53)	(2.64)	(6.50)
Over 20 years	31.5	31.9	24.2	36.8	33.9	12.1	39.1	26.2	23.5	38.7	26.9	39.5
(s.e.)	(0.59)	(0.84)	(2.92)	(1.59)	(8.73)	(4.55)	(7.00)	(2.21)	(2.53)	(2.31)	(3.21)	(6.03)

Table 117—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected teacher characteristics: 1990-91—Continued

Selected teacher characteristics	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Type of credential in primary assignment field												
None	2.4	1.0	0.0	0.5	2.0	0.5	4.6	0.3	0.8	1.6	3.2	0.9
(s.e.)	(0.17)	(0.24)	(0.00)	(0.25)	(1.21)	(0.53)	(4.22)	(0.14)	(0.37)	(0.71)	(1.23)	(0.66)
Standard state certificate	76.1	77.4	78.7	78.8	68.2	68.2	77.7	79.4	81.6	71.6	71.0	72.5
(s.e.)	(0.45)	(0.81)	(2.85)	(1.46)	(8.74)	(9.66)	(5.46)	(1.83)	(2.19)	(2.47)	(3.33)	(5.76)
Probationary certificate	2.7	2.1	2.7	2.4	0.8	3.1	1.1	1.4	1.5	2.7	2.0	2.7
(s.e.)	(0.17)	(0.28)	(1.13)	(0.55)	(0.86)	(2.96)	(0.59)	(0.63)	(0.64)	(0.81)	(0.86)	(1.23)
Temporary, provisional, or emergency certificate	3.0	3.9	2.5	2.2	8.9	10.5	7.5	3.2	2.9	7.5	7.0	3.9
(s.e.)	(0.19)	(0.37)	(1.13)	(0.59)	(6.17)	(3.25)	(1.83)	(0.79)	(0.94)	(1.54)	(1.87)	(2.65)
Other	15.9	15.7	16.1	16.1	20.1	17.7	9.1	15.6	13.2	16.7	16.8	20.0
(s.e.)	(0.36)	(0.70)	(3.04)	(1.31)	(6.58)	(8.32)	(2.60)	(1.68)	(1.86)	(1.92)	(2.36)	(4.53)

Third row, first column reads: Of all nonvocational public school teachers of grades 9 through 12 in 1990-91, 0.3 percent had less than a bachelor's degree.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

[3] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

[4] Unlike the more general "vocational education" field of study, "occupationally specific" fields of study emphasize preparation in specific technical fields, such as computer and information sciences and health professions and occupations.

[5] Other fields of study include general studies, interdisciplinary studies, and educational administration.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990-91 Schools and Staffing Survey.

Table 118—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected school characteristics: 1990-91

Selected school characterisitcs	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	18,518	4,220	335	1,261	56	85	116	786	511	624	322	124
School type												
Comprehensive	90.9	85.1	91.8	91.4	90.0	67.6	59.5	92.6	56.1	91.1	75.1	87.4
(s.e.)	(0.94)	(1.08)	(2.06)	(1.06)	(4.55)	(6.25)	(7.12)	(1.17)	(3.16)	(1.44)	(3.91)	(3.67)
Vocational	1.1	10.3	5.0	4.7	2.3	29.7	37.1	2.6	38.1	3.7	21.0	4.3
(s.e.)	(0.15)	(0.91)	(1.45)	(0.72)	(1.88)	(6.15)	(6.92)	(0.60)	(2.91)	(0.98)	(3.81)	(2.35)
Other	8.0	4.6	3.2	4.0	7.6	2.7	3.4	4.8	5.8	5.2	3.9	8.4
(s.e.)	(0.94)	(0.48)	(1.35)	(0.73)	(4.31)	(2.01)	(2.43)	(0.95)	(1.56)	(0.92)	(1.37)	(3.25)
Urbanicity of school												
Urban	24.5	20.7	4.9	22.0	27.9	23.5	21.3	20.5	21.3	19.1	27.1	25.1
(s.e.)	(0.78)	(1.19)	(1.96)	(1.65)	(7.92)	(6.80)	(6.85)	(2.06)	(3.08)	(2.31)	(3.70)	(7.12)
Suburban	31.5	27.4	9.2	29.5	30.3	38.4	42.4	25.0	27.7	29.3	26.2	28.0
(s.e.)	(0.95)	(1.18)	(2.48)	(1.82)	(7.40)	(6.29)	(7.52)	(2.59)	(3.79)	(2.69)	(3.41)	(5.67)
Rural	44.0	51.9	85.8	48.5	41.7	38.0	36.4	54.5	51.0	51.6	46.7	46.9
(s.e.)	(0.83)	(1.26)	(2.85)	(1.77)	(8.98)	(6.32)	(7.28)	(2.63)	(3.51)	(2.38)	(4.33)	(7.30)
Percent of students in the school participating in remedial reading												
None	20.9	23.2	25.7	24.1	24.0	26.9	21.1	20.8	28.3	20.9	22.2	18.7
(s.e.)	(0.84)	(1.10)	(2.94)	(1.64)	(6.39)	(7.60)	(5.29)	(1.79)	(2.92)	(2.29)	(3.27)	(3.87)
1-10%	57.7	55.4	53.4	56.9	57.8	44.5	49.5	58.4	44.1	61.4	49.3	60.2
(s.e.)	(1.15)	(1.40)	(3.95)	(2.04)	(7.66)	(8.50)	(6.90)	(2.59)	(2.88)	(3.27)	(4.61)	(5.44)
11-40%	19.9	19.8	19.9	17.6	13.5	22.8	22.6	19.4	26.3	16.4	26.8	20.4
(s.e.)	(1.09)	(1.03)	(3.46)	(1.25)	(4.77)	(6.78)	(6.11)	(2.04)	(3.20)	(2.02)	(4.23)	(4.37)
41% or more	1.5	1.6	1.0	1.4	4.7	5.8	6.8	1.4	1.3	1.3	1.8	0.7
(s.e.)	(0.21)	(0.33)	(0.47)	(0.34)	(4.06)	(2.89)	(4.55)	(0.42)	(0.45)	(0.49)	(0.77)	(0.71)

Table 118—Percentage of public school teachers of grades 9 through 12 by vocational program area, by selected school characteristics: 1990–91—Continued

Selected school characteristics	Non-vocational	Vocational program area[1]										
		Total	Agri-culture	Business & accounting	Career education	Health occupations	Technical	Home economics	Trade & industry	Industrial arts	Other	Mixed[2]
Percent of students in the school receiving free or reduced-price lunch												
None	0.3	0.2	0.0	0.0	0.0	1.1	0.4	0.2	0.3	0.3	0.3	0.0
(s.e.)	(0.11)	(0.11)	(0.00)	(0.01)	(0.0)	(0.87)	(0.44)	(0.12)	(0.28)	(0.25)	(0.20)	(0.00)
1-10%	34.6	33.0	16.4	35.7	37.0	39.4	39.2	27.2	34.0	38.6	32.2	31.4
(s.e.)	(1.18)	(1.52)	(2.96)	(2.19)	(8.57)	(9.54)	(8.86)	(2.31)	(2.85)	(3.58)	(4.09)	(5.55)
11-40%	47.1	49.7	65.3	48.4	51.0	47.7	45.6	51.9	49.4	46.0	47.7	45.5
(s.e.)	(1.21)	(1.62)	(3.60)	(2.26)	(9.03)	(9.02)	(9.16)	(2.52)	(3.47)	(3.50)	(4.89)	(5.86)
41% or more	18.0	17.2	18.3	15.9	11.9	11.8	14.8	20.7	16.2	15.1	19.9	23.1
(s.e.)	(0.93)	(1.07)	(2.99)	(1.52)	(5.28)	(4.36)	(6.27)	(1.94)	(2.28)	(1.97)	(3.36)	(6.27)

Third row, first column reads: Of all nonvocational public school teachers of grades 9 through 12 in 1990–91, 90.9 percent taught in comprehensive high schools.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

Table 119—Percentage of public school teachers of grades 9 through 12 who have taken college-level courses in teaching methods or education by number of courses taken at the undergraduate and graduate levels, by type of teaching assignment and vocational program area: 1990–91

Teaching assignment and vocational program area	All teachers		Teachers taking at least one education or methods course								
			Number of undergraduate courses				Number of graduate courses				
	Total	Un-weighted Ns	None	1–4 courses	5–9 courses	10 or more courses	None	1–4 courses	5–9 courses	10 or more courses	Un-weighted Ns
Total	97.8		12.4	31.3	35.9	20.4	27.1	33.4	20.4	19.0	
(s.e.)	(0.14)	23,650	(0.33)	(0.39)	(0.38)	(0.38)	(0.44)	(0.40)	(0.32)	(0.42)	23,146
Nonvocational teachers, total	97.9		12.6	30.5	36.3	20.6	26.3	33.0	21.1	19.5	
(s.e.)	(0.16)	19,266	(0.36)	(0.44)	(0.46)	(0.41)	(0.48)	(0.43)	(0.37)	(0.50)	18,890
Academic	98.4		12.0	31.6	38.6	17.8	26.7	32.7	22.0	18.5	
(s.e.)	(0.16)	12,145	(0.53)	(0.51)	(0.60)	(0.42)	(0.55)	(0.50)	(0.56)	(0.62)	11,957
Other[1]	97.2		13.6	28.7	32.2	25.6	25.8	33.6	19.5	21.2	
(s.e.)	(0.30)	7,121	(0.55)	(0.75)	(0.71)	(0.91)	(0.80)	(0.76)	(0.63)	(0.95)	6,933
Vocational teachers,[2] total	97.4		11.4	34.9	34.1	19.6	31.0	35.2	17.2	16.6	
(s.e.)	(0.28)	4,384	(0.77)	(0.96)	(1.08)	(0.81)	(1.10)	(0.97)	(0.72)	(0.89)	4,256
Agriculture	96.0		11.3	40.2	35.0	13.4	24.2	39.8	17.6	18.4	
(s.e.)	(1.75)	348	(2.43)	(3.25)	(3.06)	(2.19)	(3.52)	(3.39)	(2.53)	(3.13)	336
Business & accounting	98.0		12.6	35.0	33.7	18.6	26.5	34.5	19.2	19.8	
(s.e.)	(0.60)	1,310	(1.32)	(1.75)	(1.86)	(1.51)	(1.80)	(1.78)	(1.31)	(1.82)	1,285
Career education	99.4		16.4	22.4	41.4	19.7	10.8	51.3	21.4	16.5	
(s.e.)	(0.60)	59	(3.75)	(7.26)	(7.24)	(5.74)	(4.04)	(6.40)	(5.15)	(4.43)	58
Health occupations	94.3		21.1	21.8	28.6	28.5	43.8	32.3	7.2	16.7	
(s.e.)	(2.46)	87	(7.43)	(6.67)	(8.08)	(6.69)	(6.83)	(7.61)	(4.22)	(5.46)	79
Technical	96.9		9.1	24.4	48.9	17.5	39.8	37.4	12.5	10.3	
(s.e.)	(1.71)	117	(4.70)	(5.89)	(7.16)	(5.29)	(6.33)	(8.90)	(3.54)	(3.88)	111
Home economics	98.2		9.0	35.0	39.4	16.6	28.0	40.2	18.6	13.2	
(s.e.)	(0.65)	814	(1.39)	(2.36)	(2.48)	(1.57)	(2.31)	(2.06)	(1.71)	(1.75)	800
Trade & industry	96.2		7.9	29.3	32.7	30.1	56.8	21.0	9.7	12.4	
(s.e.)	(0.93)	522	(1.44)	(3.22)	(2.94)	(3.15)	(2.93)	(2.53)	(1.72)	(1.98)	496
Industrial arts	98.5		14.1	37.5	29.7	18.7	26.1	36.9	18.8	18.2	
(s.e.)	(0.52)	651	(2.11)	(2.69)	(2.40)	(1.87)	(2.62)	(2.74)	(1.99)	(1.80)	639
Other	93.9		10.1	36.2	31.1	22.6	39.2	32.0	12.4	16.3	
(s.e.)	(1.94)	346	(2.08)	(3.42)	(3.69)	(3.26)	(3.91)	(3.24)	(2.13)	(2.63)	325
Mixed[3]	97.6		6.3	47.1	26.9	19.6	24.7	40.3	21.9	13.1	
(s.e.)	(1.81)	130	(2.78)	(6.37)	(5.65)	(3.56)	(5.12)	(5.99)	(5.29)	(2.29)	127

First row, first column reads: 97.8 percent of all public school teachers of grades 9 through 12 in 1990–91 took at least one college-level course in teaching methods or education.

First row, third column reads: Among public school teachers of grades 9 through 12 in 1990–91 who took at least one college-level course in teaching methods or education, 12.4 percent did not take any undergraduate-level courses in teaching methods or education.

[1] Teachers were defined as "other" if fewer than one-half of the classes they taught were in vocational subjects and fewer than one-half were in academic subjects.

[2] Teachers were defined as vocational if more than one-half of the classes the teacher taught were in vocational subjects.

[3] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Educational Statistics, 1990–91 Schools and Staffing Survey.

Table 120—Percentage of public school teachers of grades 9 through 12 who have taken college-level courses in their main assignment field by number of courses taken at the undergraduate and graduate levels, by type of teaching assignment and vocational program area: 1990–91

Teaching assignment and vocational program area	All teachers		Teachers taking at least one course in main assignment field								
			Number of undergraduate courses				Number of graduate courses				Un-weighted Ns
	Total	Un-weighted Ns	None	1–4 courses	5–9 courses	10 or more courses	None	1–4 courses	5–9 courses	10 or more courses	
Total	94.9		7.0	9.6	19.1	64.3	32.1	23.8	21.5	22.7	
(s.e.)	(0.25)	21,378	(0.35)	(0.34)	(0.41)	(0.48)	(0.60)	(0.49)	(0.57)	(0.41)	20,289
Nonvocational teachers, total	95.9		6.8	9.1	19.7	64.4	31.5	23.5	21.9	23.1	
(s.e.)	(0.24)	16,994	(0.38)	(0.32)	(0.51)	(0.55)	(0.61)	(0.55)	(0.61)	(0.48)	16,321
Academic	97.0		5.0	8.6	22.2	64.2	32.3	24.8	21.2	21.7	
(s.e.)	(0.24)	12,145	(0.34)	(0.45)	(0.60)	(0.80)	(0.77)	(0.64)	(0.75)	(0.60)	11,763
Other[1]	93.0		11.6	10.4	13.0	64.9	29.4	20.0	23.8	26.7	
(s.e.)	(0.51)	4,849	(0.70)	(0.60)	(0.72)	(0.88)	(1.06)	(0.85)	(0.95)	(0.98)	4,558
Vocational teachers,[2] total	90.9		8.1	11.8	16.4	63.7	35.0	25.1	19.3	20.6	
(s.e.)	(0.63)	4,384	(0.70)	(0.71)	(0.73)	(0.97)	(1.25)	(0.99)	(0.92)	(0.82)	3,968
Agriculture	95.1		7.5	7.9	9.7	75.0	27.7	19.5	27.9	24.9	
(s.e.)	(1.48)	348	(2.19)	(2.16)	(1.84)	(3.17)	(3.36)	(2.82)	(3.45)	(2.69)	335
Business & accounting	95.5		6.5	11.6	17.9	64.0	32.3	26.6	20.5	20.6	
(s.e.)	(0.89)	1,310	(1.09)	(1.15)	(1.38)	(1.78)	(2.03)	(1.79)	(1.40)	(1.54)	1,265
Career education	89.6		31.0	2.9	19.6	46.5	11.5	30.6	31.9	26.0	
(s.e.)	(4.71)	59	(7.06)	(2.02)	(9.85)	(11.57)	(5.97)	(8.70)	(9.17)	(7.24)	52
Health occupations	91.5		6.0	19.7	21.4	52.9	46.1	28.2	10.3	15.3	
(s.e.)	(2.98)	87	(3.02)	(6.32)	(7.28)	(7.04)	(7.04)	(6.62)	(4.27)	(7.13)	74
Technical	83.4		11.7	7.9	21.2	59.2	41.0	14.1	20.3	24.6	
(s.e.)	(4.68)	117	(5.73)	(3.45)	(5.86)	(6.51)	(7.40)	(5.97)	(6.04)	(6.80)	94
Home economics	96.0		8.6	6.6	10.6	74.1	32.3	27.1	18.3	22.3	
(s.e.)	(0.80)	814	(1.53)	(1.28)	(1.28)	(1.74)	(2.37)	(2.11)	(1.80)	(1.74)	782
Trade & industry	72.3		8.1	30.4	23.8	37.7	59.4	17.3	9.2	14.2	
(s.e.)	(2.78)	522	(2.11)	(3.93)	(2.96)	(4.26)	(3.45)	(2.97)	(1.58)	(2.48)	354
Industrial arts	93.8		7.1	10.0	17.0	65.8	33.9	26.9	21.8	17.4	
(s.e.)	(1.29)	651	(1.48)	(1.55)	(1.82)	(2.44)	(2.85)	(2.10)	(2.52)	(2.27)	610
Other	79.7		13.9	13.4	18.6	54.1	39.3	22.4	14.7	23.6	
(s.e.)	(2.83)	346	(2.78)	(2.50)	(3.01)	(4.38)	(3.73)	(3.35)	(2.28)	(3.64)	284
Mixed[3]	89.4		1.8	13.5	15.8	68.9	26.6	29.6	17.5	26.3	
(s.e.)	(3.60)	130	(1.18)	(4.18)	(4.69)	(5.29)	(4.93)	(4.87)	(4.94)	(6.08)	118

First row, first column reads: 94.9 percent of all public school teachers of grades 9 through 12 in 1990–91 took at least one college-level course in their main assignment field. First row, third column reads: Among public teachers of grades 9 through 12 in 1990–91 who took at least one college-level course in their main assignment field, 7.0 percent did not take any undergraduate-level courses in their main assignment field.

[1] Teachers were defined as "other" if fewer than one-half of the classes they taught were in vocational subjects and fewer than one-half were in academic subjects.

[2] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[3] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

NOTE: Estimates may not sum to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

Table 121—Average salaries of vocational and nonvocational public school teachers of grades 9 through 12, by selected teacher and school characteristics: 1990-91 (1990 dollars)

Selected teacher and school characteristics	Average salary	Unweighted Ns
All teachers		
Total	$32,052	
(s.e.)	(172)	23,650
Teaching assignment		
Nonvocational teachers, total	32,145	
(s.e.)	(198)	19,266
Vocational teachers,[1] total	31,595	
(s.e.)	(222)	4,384
Vocational teachers only		
Highest degree		
Less than a bachelor's	29,153	
(s.e.)	(526)	412
Bachelor's	28,082	
(s.e.)	(318)	2,160
Master's	35,363	
(s.e.)	(359)	1,606
Education specialist	36,281	
(s.e.)	(1,193)	191
Doctor's or first professional	—	
(s.e.)	—	15
Number of years of teaching experience		
Under 3 years	21,660	
(s.e.)	(618)	288
3-9 years	24,830	
(s.e.)	(277)	991
10-20 years	31,788	
(s.e.)	(386)	1,848
Over 20 years	37,294	
(s.e.)	(370)	1,257
Urbanicity of school		
Urban	34,035	
(s.e.)	(416)	735
Suburban	36,014	
(s.e.)	(605)	854
Rural	28,007	
(s.e.)	(213)	2,631

First row, first column reads: Public school teachers of grades 9 through 12 earned an average salary of $32,052 in 1990-91.

—Sample size was too small for reliable estimate.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990-91 Schools and Staffing Survey.

Table 122—Average size of vocational and nonvocational public school classes in grades 9 through 12, by type of school: 1990–91

	All classes		Vocational classes		Nonvocational classes	
School type	Average number of students	Un-weighted Ns	Average number of students	Un-weighted Ns	Average number of students	Un-weighted Ns
Total	21.8		17.4		22.2	
(s.e.)	(0.09)	20,334	(0.20)	2,981	(0.10)	18,629
School type						
Comprehensive	21.8		17.5		22.2	
(s.e.)	(0.11)	17,945	(0.24)	2,351	(0.11)	16,691
Vocational	16.9		16.0		17.9	
(s.e.)	(0.53)	536	(0.52)	389	(0.76)	231
Other*	21.9		16.5		22.3	
(s.e.)	(0.57)	1,074	(0.90)	125	(0.59)	998

First row, first column reads: On average, public school classes in grades 9 through 12 in 1990–91 contained 21.8 students.
*Other high schools include high schools with a special program emphasis, special education high schools (primarily serving handicapped students), and alternative high schools (offering a curriculum designed to address the needs of students that typically cannot be met in a regular school).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

Table 123—Average number of students instructed per week by vocational and nonvocational public school teachers of grades 9 through 12, by selected teacher and school characteristics: 1990–91

Selected teacher and school characteristics	Average number of students instructed per week	Unweighted Ns
Total	109.2	
(s.e.)	(0.44)	20,633
Nonvocational teachers, total	113.4	
(s.e.)	(0.47)	16,755
Academic	111.3	
(s.e.)	(0.51)	11,754
Other[1]	118.3	
(s.e.)	(1.10)	5,001
Vocational teachers,[2] total	89.3	
(s.e.)	(0.90)	3,878
Vocational program area		
Agriculture	82.0	
(s.e.)	(3.07)	321
Business & accounting	94.3	
(s.e.)	(1.80)	1,234
Career education	92.1	
(s.e.)	(7.92)	59
Health occupations	88.1	
(s.e.)	(8.30)	53
Technical	93.5	
(s.e.)	(7.55)	94
Home economics	90.5	
(s.e.)	(1.18)	780
Trade & industry	75.0	
(s.e.)	(3.31)	369
Industrial arts	86.5	
(s.e.)	(2.72)	596
Other vocational	92.2	
(s.e.)	(4.87)	242
Mixed[3]	86.1	
(s.e.)	(3.85)	130
School type		
Comprehensive	90.2	
(s.e.)	(0.94)	3,194
Vocational	75.2	
(s.e.)	(3.36)	376
Other[4]	86.0	
(s.e.)	(3.38)	158

First row, first column reads: On average, public school teachers of grades 9 through 12 in 1990–91 instructed 109.2 students per week.

[1] Teachers were defined as "other" if fewer than one-half of the classes they taught were in vocational subjects and fewer than one-half were in academic subjects.

[2] Teachers were defined as vocational if more than one-half of the classes the teacher taught were in vocational subjects.

[3] "Mixed" indicates that the teacher taught equal proportions in two or more vocational subjects.

[4] Other high schools include high schools with a special program emphasis, special education high schools (primarily serving handicapped students), and alternative high schools (offering a curriculum designed to address the needs of students that typically cannot be met in a regular school).

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1990–91 Schools and Staffing Survey.

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Table 124—Percentage of public school teachers of grades 9 through 12 by type of teaching assignment, by selected demographic characteristics: 1987–88 and 1990–91

Selected demographic characteristics	1987–88			1990–91		
	All teachers	Vocational*	Non-vocational	All teachers	Vocational*	Non-vocational
Total	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	18,178	3,863	14,315	23,650	4,384	19,266
Sex						
Unweighted Ns	18,114	3,854	14,254	23,650	4,384	19,266
Male	49.9	53.6	49.0	48.6	51.7	48.0
(s.e.)	(0.43)	(0.83)	(0.48)	(0.49)	(1.11)	(0.54)
Female	50.1	46.5	51.0	51.4	48.3	52.0
(s.e.)	(0.43)	(0.83)	(0.48)	(0.49)	(1.11)	(0.54)
Race-ethnicity						
Unweighted Ns	17,940	3,825	14,115	23,650	4,384	19,266
White, non-Hispanic	88.6	87.5	88.9	89.1	87.8	89.4
(s.e.)	(0.28)	(0.76)	(0.34)	(0.41)	(0.63)	(0.47)
Black, non-Hispanic	7.1	8.2	6.8	6.6	8.7	6.1
(s.e.)	(0.28)	(0.56)	(0.31)	(0.42)	(0.53)	(0.51)
Hispanic	2.5	2.2	2.5	2.8	2.0	3.0
(s.e.)	(0.13)	(0.22)	(0.17)	(0.18)	(0.35)	(0.20)
Asian	0.8	0.7	0.8	0.8	0.7	0.8
(s.e.)	(0.07)	(0.14)	(0.09)	(0.06)	(0.08)	(0.07)
Native American	1.1	1.4	1.0	0.7	0.9	0.7
(s.e.)	(0.09)	(0.20)	(0.11)	(0.06)	(0.23)	(0.06)
Age						
Unweighted Ns	17,986	3,832	14,154	23,650	4,384	19,266
Under 30 years	10.7	8.6	11.2	11.0	8.4	11.5
(s.e.)	(0.23)	(0.45)	(0.28)	(0.34)	(0.60)	(0.38)
30–39 years	31.8	29.0	32.5	26.9	24.8	27.3
(s.e.)	(0.38)	(0.75)	(0.38)	(0.37)	(0.72)	(0.47)
40–49 years	37.4	35.7	37.9	41.1	39.6	41.4
(s.e.)	(0.34)	(1.00)	(0.40)	(0.47)	(0.93)	(0.54)
50 years or over	20.1	26.8	18.5	21.0	27.2	19.7
(s.e.)	(0.32)	(1.05)	(0.28)	(0.45)	(0.92)	(0.49)

Fourth row, first column reads: Of all public school teachers of grades 9 through 12 in 1987–88, 49.9 percent were male.
*Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: 1987–88 data are from Phillip Kaufman, *A Comparison of Vocational and Non-Vocational Public School Teachers of Grades 9 to 12*, prepared for the U.S. Department of Education, National Center for Education Statistics, (Washington, DC: 1992), p. 5; 1990–91 data are from the 1990–91 Schools and Staffing Survey.

Table 125—Percentage of public school teachers of grades 9 through 12 by type of teaching assignment, by highest degree and teaching experience: 1987-88 and 1990-91

Highest degree and teaching experience	1987-88			1990-91		
	All teachers	Vocational[1]	Non-vocational	All teachers	Vocational[1]	Non-vocational
Total	100.0	100.0	100.0	100.0	100.0	100.0
Unweighted Ns	18,178	3,863	14,315	23,650	4,384	19,266
Highest college degree						
Unweighted Ns	18,178	3,863	14,315	23,650	4,384	19,266
Less than a bachelor's	1.7	7.4	0.3	1.7	8.3	0.3
(s.e.)	(0.12)	(0.50)	(0.05)	(0.14)	(0.71)	(0.05)
Bachelor's	45.9	46.9	45.6	45.4	45.5	45.3
(s.e.)	(0.39)	(0.84)	(0.43)	(0.58)	(0.97)	(0.69)
Master's	44.1	39.3	45.3	46.4	41.4	47.4
(s.e.)	(0.40)	(0.78)	(0.42)	(0.61)	(1.04)	(0.67)
Education specialist[2]	7.0	5.8	7.3	5.3	4.5	5.5
(s.e.)	(0.19)	(0.48)	(0.19)	(0.26)	(0.39)	(0.28)
Doctor's or first professional	1.4	0.6	1.5	1.3	0.3	1.5
(s.e.)	(0.09)	(0.13)	(0.11)	(0.11)	(0.12)	(0.12)
Number of years of teaching experience						
Unweighted Ns	18,178	3,863	14,315	23,650	4,384	19,266
Under 3 years	6.2	5.4	6.4	6.1	5.1	6.4
(s.e.)	(0.15)	(0.39)	(0.21)	(0.19)	(0.39)	(0.25)
3-9 years	23.4	22.5	23.6	21.4	20.5	21.6
(s.e.)	(0.32)	(0.63)	(0.40)	(0.42)	(0.84)	(0.48)
10-20 years	45.5	46.6	45.3	40.9	42.5	40.6
(s.e.)	(0.36)	(0.91)	(0.44)	(0.44)	(0.83)	(0.50)
Over 20 years	24.9	25.6	24.7	31.6	31.9	31.5
(s.e.)	(0.30)	(0.83)	(0.32)	(0.51)	(0.84)	(0.59)

Fourth row, first column reads: Of all public school teachers of grades 9 through 12 in 1987-88, 1.7 percent had less than a bachelor's degree.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: 1987-88 data are from Phillip Kaufman, *A Comparison of Vocational and Non-Vocational Public School Teachers in Grades 9 to 12*, prepared for the U.S. Department of Education, National Center for Education Statistics, (Washington, DC: 1992), p. 7; 1990-91 data are from the 1990-91 Schools and Staffing Survey.

Table 126—Percentage of public school vocational teachers of grades 9 through 12 by selected vocational program areas, by highest degree and teaching experience: 1987-88 and 1990-91

Highest degree and teaching experience	1987-88[1]				1990-91[1]			
	Business & accounting	Career education	Agriculture	Home economics	Business & accounting	Career education	Agriculture	Home economics
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Highest degree								
Unweighted Ns	1,201	84	261	606	1,310	59	348	814
Less than a bachelor's	0.2	2.7	0.0	0.1	0.6	0.5	1.5	0.3
(s.e.)	(0.11)	(2.03)	(0.00)	(0.08)	(0.33)	(0.45)	(0.66)	(0.13)
Bachelor's	44.7	45.3	53.4	59.9	43.1	42.7	51.3	58.8
(s.e.)	(1.71)	(6.02)	(2.78)	(1.91)	(1.63)	(9.13)	(3.05)	(2.11)
Master's	49.0	38.3	36.4	35.7	50.4	47.5	42.7	37.9
(s.e.)	(1.72)	(5.18)	(2.66)	(1.96)	(1.77)	(9.52)	(3.23)	(2.09)
Education specialist[2]	5.6	12.7	8.8	4.3	5.6	9.2	3.9	2.7
(s.e.)	(0.74)	(4.03)	(1.89)	(0.81)	(0.88)	(2.99)	(1.18)	(0.55)
Doctor's or first professional	0.5	1.1	1.4	0.1	0.3	0.0	0.6	0.4
(s.e.)	(0.20)	(1.17)	(0.69)	(0.09)	(0.19)	(0.00)	(0.43)	(0.24)
Number of years of teaching experience								
Unweighted Ns	1,201	84	261	606	1,310	59	348	814
Under 3 years	4.6	4.9	5.7	5.8	6.5	2.9	5.0	4.5
(s.e.)	(0.59)	(2.63)	(1.31)	(1.16)	(0.90)	(1.73)	(1.09)	(0.94)
3-9 years	19.2	19.0	35.9	20.4	16.7	17.4	33.3	21.6
(s.e.)	(1.24)	(4.73)	(3.79)	(1.57)	(1.21)	(6.59)	(3.80)	(2.24)
10-20 years	45.1	43.7	40.0	52.0	40.0	45.8	37.5	47.7
(s.e.)	(1.54)	(5.52)	(3.30)	(1.91)	(1.82)	(8.34)	(4.16)	(2.42)
Over 20 years	31.1	32.4	18.4	21.8	36.8	33.9	24.2	26.2
(s.e.)	(1.34)	(6.61)	(2.59)	(1.89)	(1.59)	(8.73)	(2.92)	(2.21)

Third row, first column reads: Of public school teachers of grades 9 through 12 who were in a business and accounting vocational program area in 1987-88, 0.2 percent had less than a bachelor's degree.

[1] Vocational teachers were assigned to the program area in which they taught the most classes.

[2] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

NOTE: Estimates sum vertically within columns but may not sum to 100 percent due to rounding.

SOURCE: 1987-88 data are from Phillip Kaufman, *A Comparison of Vocational and Non-Vocational Public School Teachers in Grades 9 to 12*, prepared for the U.S. Department of Education, National Center for Education Statistics, (Washington, DC: 1992), pp. 18-19; 1990-91 data are from the 1990-91 Schools and Staffing Survey.

Table 127—Average salaries of vocational[1] public school teachers of grades 9 through 12, by highest degree and teaching experience: 1987-88 and 1990-91 (1990 dollars)

Highest degree and teaching experience	1987-88 Average salary[2]	1987-88 Unweighted Ns	1990-91 Average salary[2]	1990-91 Unweighted Ns
Total	$30,141		$31,595	
(s.e.)	(196)	3,618	(222)	4,384
Highest degree				
Less than a bachelor's	28,354		29,153	
(s.e.)	(550)	330	(526)	412
Bachelor's	27,050		28,082	
(s.e.)	(245)	1,724	(318)	2,160
Master's	33,345		35,363	
(s.e.)	(283)	1,332	(359)	1,606
Education specialist[3]	35,441		36,281	
(s.e.)	(811)	205	(1,193)	191
Doctor's or first professional	—		—	
(s.e.)	—	27	—	15
Number of years of teaching experience				
Under 3 years	20,779		21,660	
(s.e.)	(324)	222	(618)	288
3-9 years	24,303		24,830	
(s.e.)	(224)	877	(277)	991
10-20 years	31,212		31,788	
(s.e.)	(284)	1,664	(386)	1,848
Over 20 years	35,576		37,294	
(s.e.)	(419)	855	(370)	1,257

First row, first column reads: Public school vocational teachers of grades 9 through 12 earned an average salary of $30,141 in 1987-88, in 1990 dollars.

—Sample size was too small for reliable estimate.

[1] Teachers were defined as vocational if more than one-half of the classes they taught were in vocational subjects.

[2] Amount reflects only academic base-year salaries.

[3] Education specialist degrees or certificates are generally awarded for one year's work beyond the master's level.

SOURCE: U.S. Department of Education, National Center for Education Statistics, the 1987-88 and 1990-91 Schools and Staffing Surveys.

APPENDIX B

DATA SOURCES AND TECHNICAL NOTES

DATA SOURCES AND TECHNICAL NOTES

This appendix describes the data sources included in this publication, the information provided on targeted populations, and the methods used to prepare and analyze the data.

DATA SOURCES

This report used data from a wide variety of sources. These include the following:

- 1987 High School Transcript Study
- 1990 National Assessment of Educational Progress and High School Transcript Study
- 1990 National Postsecondary Student Aid Study
- High School and Beyond Sophomore Cohort 1982 High School Transcript Study
- National Adult Literacy Survey
- National Assessment of Vocational Education Omnibus Survey
- National Education Longitudinal Study of 1988
- Schools and Staffing Survey
- Survey of Income and Program Participation

Most of the datasets covered secondary vocational education data, although the 1990 National Postsecondary Student Aid Study (NPSAS:90) provided information on postsecondary students reporting majors in vocational programs; the National Assessment of Vocational Education (NAVE) Omnibus Survey provided information on the implementation of 1990 Perkins Act reforms in both secondary schools and postsecondary institutions; the Survey of Income and Program Participation (SIPP) provided information on employment and earnings outcomes associated with participation in postsecondary vocational education; and the National Adult Literacy Survey (NALS) provided information on inmates in federal and state prisons. Additionally, while most datasets provided information on students, the Schools and Staffing Survey (SASS) provided information on secondary school teachers and the NAVE Omnibus Survey provided information at the school and institution level.

Because of the nature of the different data collection efforts, some of the information presented in the report is not parallel at the secondary and postsecondary education levels. First, several datasets—the most recent among them being the National Education Longitudinal Study of 1988 (NELS:88)—provided transcript data at the secondary level, permitting a detailed examination of high school academic and vocational course-taking patterns. However, NPSAS:90 was based on self-reported majors, limiting the types of inquiry that could be made. Second, while a new SASS provided updated information on high school teachers, the newest National Survey of Postsecondary Faculty (NSOPF) was not available while the tables for this report were being prepared. Third, while the SIPP provided information on labor market outcomes for postsecondary vocational completers, the NELS Second Follow-Up provided data on secondary students through high school graduation only. The NELS Third Follow-Up, which surveyed cohort members 2 years after graduation, was not available while the report was being prepared. Thus, *Vocational Education in the United States: 1969-1990* contains the latest available information on labor market outcomes for students who participated in vocational education in high school, based on the High School and Beyond Sophomore Cohort Second Follow-Up Survey.

This publication incorporates the most recent data on vocational education that were available during report preparation. However, several new datasets have or will become available during 1995. These include (1) High School and Beyond (HS&B) Sophomore Cohort Fourth Follow-Up Survey, providing information on 1982 high school graduates 10 years after graduation in 1992; (2) NELS:88 Third Follow-Up, providing information on 1992 high school graduates 2 years after graduation in 1994; (3) SASS:94, providing information on a cross-section of secondary teachers during 1993–94; (4) NSOPF:93, providing information on a cross-section of postsecondary faculty during 1992–93; (5) NPSAS:93, providing information on a cross-section of postsecondary students during 1992–93; (6) Beginning Postsecondary Students (BPS) Second Follow-Up, providing information on postsecondary students enrolled in 1989–90 4 years later in 1994; and (7) Baccalaureate and Beyond (B&B) First Follow-Up, providing information on bachelor's degree recipients in 1992–93 1 year later in 1994.[1]

A brief description of each data source included in this publication follows.

1987 High School Transcript Study

The 1987 High School Transcript Study (1987 HSTS) provided information on course-taking patterns for high school students who were in the 11th grade in the 1985–86 school year. This stratified, nationally representative sample included 34,140 students from approximately 300 schools. Course data from student transcripts were coded into a standardized format based on the six-digit codes in the Classification of Secondary School Courses (CSSC).

This report included transcript information from 24,426 students who graduated from public high schools in 1987. The variable STYPE was used to distinguish between public and private high school students, and the variable EXSTAT was used to further limit the sample to graduates. Only those graduates who earned between 16 and 32 total Carnegie units in high school, and a positive number of Carnegie units in English, were included in the sample. Standard errors for the data were computed using the Taylor Series approximation method. For further information on the 1987 HSTS, consult Judy Thorne et al., *The 1987 High School Transcript Study Data File User's Manual,* Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, 1989. You may also speak to Andrew Kolstad at (202) 219-1023.

1990 High School Transcript Study and National Assessment of Educational Progress

The 1990 High School Transcript Study (1990 HSTS) provided information on course-taking patterns for high school students (tables 50–57 and 105–108). The 1990 HSTS collected transcript data from a stratified, nationally representative sample of 21,531 graduates from 330 high schools in 1990. Only those graduates who earned between 16 and 32 total Carnegie units in high school, and a positive number of Carnegie units in English, were included in the sample. Of this transcript sample, 16,456 students also participated in the National Assessment of Educational Progress (NAEP) in 1990. The NAEP is an ongoing assessment of academic achievement in a variety of subject areas and is administered to students in grades 4, 8, and 12 across the country. The 1990 HSTS assigned a course identification code number, based on the Classification of Secondary School Courses (CSSC), for each course taken by a student. This served to standardize all of the transcripts included in the sample. Additionally, demographic data on each of the students were collected. For the students who were assessed by the NAEP, a linked weighting system was used in order to compare the NAEP scores and course-taking patterns (tables 105–108). In this report, the sample was limited to public high school graduates. Standard errors were computed using the Taylor Series approximation method. For further information on the 1990 HSTS, see Stanley Legum et al., *The 1990 High School Transcript Study, Final Technical Report,* Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, December 1992. You may also speak to Steve Gorman at (202) 219-1937.

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[1] Celestine Davis and Bill Sonnenberg, eds., *Programs and Plans* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, 1995).

1990 National Postsecondary Student Aid Study

The 1990 National Postsecondary Student Aid Study (NPSAS:90) collected data on the characteristics of postsecondary students, particularly those who received student aid. NPSAS:90 was comprised of a stratified sample of almost 70,000 postsecondary students taking courses for credit at approximately 1,100 institutions in 35 geographical areas throughout the 1989-90 academic year. Of this sample, 47,000 were undergraduates and 21,000 were nonbaccalaureate students. The data collection process included three sources. Records were collected from the sampled institutions, a sample of students from their institutions were interviewed by telephone and the parents or guardians of a subset of these sampled students also had phone interviews. The sample was stratified as a function of institution location, institution control, type, and enrollment, and student enrollment during the sampled academic year. Standard errors for the data were computed using the Taylor Series approximation method. Some items on the NPSAS:90 survey had high item nonresponse. Individuals who did not respond to an item were reported in a separate category under a variable, if item nonresponse for that variable exceeded 30 percent. For more information on the NPSAS:90 survey, consult Andrew G. Malizio et al., *Methodology Report for the 1990 National Postsecondary Student Aid Study*, Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, April 1992. You may also speak to Andrew Malizio at (202) 219-1448.

High School and Beyond Sophomore Cohort 1982 High School Transcript Study

The estimates for high school seniors in 1982 are based on a subsample of 1980 sophomores whose high school transcripts were collected as a part of the High School and Beyond (HS&B) study. This longitudinal survey was first administered in 1980 to a stratified, nationally representative sample of roughly 30,000 high school sophomores and 28,000 high school seniors from more than 1,000 high schools. Follow-up surveys were administered in 1982, 1984, 1986, and 1992. This report uses data from the sophomore cohort of the First Follow-Up survey. The sample was limited to public high school students by using the variable HSTYPE. This group was further reduced by including only high school graduates. Graduation status was defined by using a "student type" variable, which was a composite of the graduation status variables RESNLEFT, FUSTTYPE, and SY12, from the Transcript, First Follow-Up, and Second Follow-Up surveys, respectively. Only those graduates who earned between 16 and 32 total Carnegie units in high school, and a positive number of Carnegie units in English, were included in the sample. The final sample comprised 9,510 public high school seniors. Standard errors were computed using the Taylor Series approximation method. For further information on HS&B, consult Calvin Jones et al., *High School and Beyond Transcript Survey: 1982 Data File Users Manual*, Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, 1984. You may also speak to Aurora D'Amico at (202) 219-1365.

National Adult Literacy Survey

The National Adult Literacy Survey (NALS) collected data on the educational skills and work experiences of persons incarcerated in federal and state prisons. To conduct the survey, a sample of 1,073 male and 71 female inmates aged 16 and older was drawn from approximately 80 state and federal prisons in the winter and spring of 1992. Surveys were administered by trained interviewers to an average of 12 to 15 inmates per facility, with each interview lasting approximately 1 hour. Survey questions included 15 minutes of background questions and 45 minutes of literacy simulation tasks.

Since clusters of adults from the same facility and residential block were selected, observations were more similar than might be expected from independently selected adults in a simple random sample. Accordingly, jackknife variance estimators were used to obtain estimates of total sampling error for population estimates—a total of 45 replicate weights were created for use with jackknife estimates. To account for sampling design, all responses were weighted to reflect the appropriate proportional representation of individuals in the population. For further information on this survey, consult Anne Campbell et al., *Assessing Literacy: The Framework for the National Adult Literacy Survey*, Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, October 1992. You may also speak to Andy Kolstad at (202) 219-1773.

Generally, this publication followed the standard data suppression rule of not reporting estimates in tables when the unweighted N for a cell is less than 30. However, because of particular study design effects, the NALS table suppressed estimates when the unweighted N for a cell was less than 45.

National Assessment of Vocational Education Omnibus Survey

The National Assessment of Vocational Education (NAVE) Omnibus Survey included seven questionnaires. This report uses data collected from two of those questionnaires (the Survey of Public Secondary Schools and the Survey of Two-Year Public Postsecondary Institutions). These questionnaires asked school- and institution-level administrators about reform efforts related to vocational education, including integration of academic and vocational education and school-to-work program offerings (such as cooperative education, work experience, and school-based enterprises). Because of the confusing wording of certain survey items, data on tech prep and apprenticeship program offerings were excluded from this report. Further information regarding these surveys can be found in the NAVE's *Report to Congress*. You may also speak to David Boesel at (202) 219-1598.

The frame from which secondary schools were sampled was developed from the Quality Education Data list of districts and schools, supplemented by the Department of Education's Common Core of Data. Public secondary schools and districts were divided into two categories—vocational and regular—using the following criteria: schools that offered only vocational education were defined as vocational schools; all other schools were defined as regular schools; districts with only vocational schools were defined as vocational districts; and districts with at least one regular school were defined as regular districts.

Regular school districts were sampled within three community type strata: urban, suburban, and rural. One school was selected, with probability proportionate to size, from each sampled regular secondary district, resulting in a sample of 2,000 regular schools out of 15,421 schools nationwide. Vocational schools in vocational districts were sampled with certainty, and all vocational schools in the regular school districts that were sampled were sampled with certainty, resulting in a total sample of 1,130 out of 1,477 vocational schools across the country. Sampling weights were assigned to schools based on their selection probabilities and an adjustment for nonresponse. Due to the complex sampling design, replicate weights were created to estimate standard errors using the jackknife replication procedure.

A census was taken of all 1992 2-year public postsecondary institutions included in the Department of Education's Integrated Postsecondary Data System (IPEDS), which itself contains the universe of 2-year public postsecondary institutions. The data were collected between March and October 1992, and 79 percent of the institutions responded. Because the survey was administered to the universe of institutions, standard errors of the estimates were not computed.

National Education Longitudinal Study of 1988

The National Education Longitudinal Study of 1988 (NELS:88), was a stratified, nationally representative sample of almost 26,000 students in the eighth grade from more than 1,000 public and private junior high schools. Follow-up surveys were administered in 1990 and 1992, when the students were sophomores and seniors in high school. The Second Follow-Up "freshened" the sample to make it representative of students enrolled in the 12th grade in the spring of 1992, by adding students who were not in the base year either because they were not in the country or because they were not in the eighth grade in the spring of 1988. Data from the student and transcript files were used in this report. Transcript data were available for about 17,200 students. Only those graduates who earned between 16 and 32 total Carnegie units in high school, and a positive number of Carnegie units in English, were included in the sample.

The sample used for this report was also limited to public high school graduates who earned a regular high school diploma. Graduates earning special education diplomas were excluded from the sample. The variable G12CTRL2 was used to restrict the sample to students attending public high schools, and the variable F2REASL was used to further limit the sample to those students who graduated from high school. The final sample size included 11,707 students. Standard errors for the data were computed using the Taylor Series approximation method. For further information on NELS and the Second Follow-Up, consult Steven J. Ingels et al., *National Education Longitudinal Study of 1988 Second Follow-Up: Data File User's Manual* , Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, September 1994. You may also speak to Peggy Quinn at (202) 219-1743.

Schools and Staffing Survey

The 1990-91 Schools and Staffing Survey (SASS) collected data on elementary and secondary teachers during the 1990-91 school year. The sample consisted of over 65,000 teachers from more than 12,500 schools. The report used data from the Teacher File on approximately 23,600 public school teachers of grades 9 through 12 to analyze differences between vocational and nonvocational teachers. Teachers who taught 50 percent or more of their courses in vocational subjects were considered vocational. The report also relied on the School File, which provided information on characteristics of the schools in which teachers taught. For a detailed description of the procedures employed, see Steven Kaufman and Hertz Huang, *1990-91 Schools and Staffing Survey: Sample Design and Estimation*, Technical Report, Washington, D.C.: National Center for Educational Statistics, U.S. Department of Education, 1993.

This report also makes use of the 1987-88 SASS Teacher File, which collected data on elementary and secondary teachers during the 1987-88 school year. The 1987-88 survey consisted of over 65,000 teachers from more than 12,800 schools. This report used data on about 18,000 public school teachers of grades 9 through 12 from the 1987-88 survey. For a detailed description of the procedures employed, see Phillip Kaufman, *A Comparison of Vocational and Non-Vocational Public School Teachers in Grades 9 to 12*, Washington, D.C.: National Center for Educational Statistics, U.S. Department of Education, 1991. You may also speak to Kerry Gruber at (202) 219-1370.

Survey of Income and Program Participation

The 1990 panel of the Survey of Income and Program Participation (SIPP) was a nationally representative longitudinal survey of all households. The survey was conducted in approximately 230 primary sampling units and more than 800 housing units, covering eight sampling periods from February 1990 to September 1992 (every 4 months). In addition, an education and training topical module, which includes questions pertaining to the field of study of postsecondary degree and nondegree holders, was administered during the second sampling period (from June to September 1992).

About 45,000 persons were interviewed for all of the eight sampling periods. This report used data from the first seven sampling periods, including data from the education and training topical module. The sample was limited in this report to persons aged 18-34 (approximately 10,200 persons). The standard errors for the estimates were calculated using generalized variance equations. Further information on this survey can be found in Daniel Kasprzyk, "The Survey of Income and Program Participation: An Overview and Discussion of Research Issues" SIPP Working Paper No. 8830, U.S. Department of Commerce, Bureau of the Census, December 1988.

Although this publication generally followed the suppression rule of not reporting estimates in tables when the unweighted N for a cell was less than 30, the SIPP data followed a separate rule recommended by the Census Bureau for Current Population Survey and related data. In the SIPP tables, estimates were suppressed when the base for a calculation was less than 200,000 persons.

PROVIDING INFORMATION ON TARGETED POPULATIONS

Section 421 of the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 (1990 Perkins Act) established a national data system that would include information on the extent of participation in vocational education of the following populations:

- Women;
- American Indians;
- Individuals with handicaps;
- Individuals of limited English proficiency;
- Economically disadvantaged individuals (including students in rural and urban areas);
- Adults who are in need of training and retraining;
- Single parents;
- Incarcerated youths and adults;
- Individuals who participate in programs designed to eliminate sex bias;
- Minorities; and
- Displaced homemakers.

This publication provides up-to-date information on most of these targeted populations, as well as on an additional special population group—academically disadvantaged individuals.

This report does not provide information on adults in need of training and retraining or displaced homemakers. In the former case, the term must be defined before the population can be identified.[2] For example, a broad definition of adults in need of training or retraining might include all adults who are unemployed or employed in low-wage jobs. A more restrictive definition might include adults who have experienced long periods of unemployment or those who are employed in low-paying occupations outside their field of training. The Survey of Income and Program Participation (SIPP) could provide a potential source of information on this population, once defined. In the latter case, the federal regulations associated with the 1990 Perkins Act define displaced homemakers as adults who have worked primarily without pay to care for the home and family and for that reason have diminished marketable skills, among other criteria. While the SIPP dataset could potentially provide information on this population, the 1990 panel did not permit creation of a reliable measure. The survey questions followed a complex skip pattern, failing to ask respondents *who had never worked* about the reasons why they had not worked. Instead, all of the questions that asked whether "taking care of home and family" was a reason for not working were asked only of respondents who had worked at some time in the recent past and then stopped working.

Including data on the remaining targeted populations sometimes required constructing relevant variables from other available information. The following discussion provides descriptions of how information on each targeted population is reported in this publication.

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[2] E. Gareth Hoachlander and Karen A. Levesque, *Improving National Data for Vocational Education: Strengthening A Multiform System* (Berkeley, CA: National Center for Research in Vocational Education, 1993) p. 33.

Women, American Indians, and Minorities

Information on sex and race-ethnicity was included as a basic data element in all of the datasets except for the National Assessment of Vocational Education (NAVE) Omnibus Survey, which included schools and institutions as the basic unit of analysis rather than individuals. This publication uses the term *Native American* in lieu of *American Indian/Alaskan Native*.

Individuals with Disabilities

In the National Education Longitudinal Study of 1988 (NELS:88), high school students were classified as either disabled or not disabled based on teacher and parent reports of student disability status in the eighth grade.[3] The NELS:88 dataset also permitted reporting information on students in schools with higher and lower proportions of the student body participating in special education.

In the 1990 National Postsecondary Student Aid Study (NPSAS:90), postsecondary students were classified as disabled if they reported any disabling conditions. It was also possible to report disability types for these students. However, a large number of postsecondary students (more than 30 percent) were missing information on disability status, necessitating reporting participation data separately for this unclassified group.

Individuals of Limited English Proficiency

In NELS:88, high school students were classified as limited English proficient or English proficient based on teacher and parent responses about the student during the eighth grade. Data on students' English proficiency were not available at the postsecondary level.

Economically Disadvantaged Individuals

The 1990 Perkins Act regulations define economically disadvantaged families or individuals as those (1) eligible for (a) Aid to Families with Dependent Children, (b) food stamps, (c) Chapter 1 of Title I of the Elementary and Secondary Education Act, (d) free or reduced-price school lunches, or (e) Job Training Partnership Act Title II programs; (2) in receipt of a Pell grant or assistance under a comparable state need-based tuition aid program; (3) determined to be low income according to the latest available data from the Departments of Commerce or Health and Human Services; or (4) identified as low income according to other indices of economic status. Section 421 of the 1990 Perkins Act also included students in rural and urban areas among economically disadvantaged individuals.

This publication includes several measures of economic disadvantage. Using the NELS:88 dataset, the report provides information on the socioeconomic status of high school students, grouping students into four quartiles constructed from data on father's occupation, father's and mother's education, family income, and material possessions in the household. NELS:88 also provides information on students in urban, suburban, and rural schools, and schools with higher and lower proportions of the student body receiving free or reduced-price lunches. The NPSAS:90 dataset provides information on postsecondary students, including financial aid status and family background (a composite variable created from data on family income for dependent students only, and father's and mother's occupations and education levels).[4] Finally, the Schools and Staffing Survey (SASS) provides information on teachers in urban, suburban, and rural schools, and schools with higher and lower proportions of the student body receiving free or reduced-price lunches.

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[3] An alternative definition of handicap status—based on special education program participation as indicated by student transcript data—is included in John Tuma and Shelley K. Burns, *Trends in Participation in Secondary Vocational Education: 1982-1992* (Washington, D.C.: U.S. Department of Education, National Center for Education Statistics), forthcoming. The Tuma and Burns report used the alternative definition in order to make the disability status data consistent across datasets for 1982, 1987, 1990, and 1992. Because their definition is more restrictive, the participation of students with disabilities appears to be more limited in that report than it does in this publication.

Academically Disadvantaged Individuals

The 1990 Perkins Act regulations define academically disadvantaged individuals as those (1) who score at or below the 25th percentile on a standardized achievement or aptitude test; (2) whose secondary school grades are below 2.0 on a 4.0 scale; or (3) who fail to attain minimum academic competencies. The definition does not include individuals with learning disabilities, who are included under "individuals with handicaps."

This publication includes several measures of academic disadvantage. Both NELS:88 and NPSAS:90 provide information on students with higher and lower grade point averages in high school and postsecondary education, respectively.[5] NELS:88 also provides information on high school students accumulating greater and fewer numbers of credits in remedial coursework, and both NELS:88 and SASS provide information on schools with higher and lower proportions of the student body taking remedial reading. Finally, the 1990 National Assessment of Educational Progress (NAEP) provides information on high school students scoring in higher and lower mathematics test quartiles.

Single Parents

The NELS:88 study asked students whether they were parents or expecting, but did not ask about marital status. Consequently, it was possible to report "student parent status" for high school graduates, but not "single parent status." In contrast, the NPSAS:90 study asked students about marital status and whether they had any dependents, but did not ask specifically whether they had children. Consequently, for postsecondary students, it was possible to report information on "unmarried students with dependents," but not "unmarried students with children."

Incarcerated Youths and Adults

Data on incarcerated persons 16 years old and older were provided through the National Adult Literacy Survey (NALS).

Individuals Who Participate in Programs Designed to Eliminate Sex Bias

None of the datasets identified individuals participating in programs to eliminate sex bias.[6] However, it was possible using NELS:88 and NPSAS:90 to compare the participation patterns of male and female students in specific occupational programs, and to identify programs with significant gender imbalances. Using SASS, it was also possible to compare the proportion of male and female teachers in different vocational areas.

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[4] For a few NPSAS tables, the number of postsecondary students missing information on family background was so high that the variable was removed from the table.

[5] For a few NPSAS tables, the number of postsecondary students missing information on postsecondary GPA was so high that the variable was removed from the table.

[6] E. Gareth Hoachlander and Karen A. Levesque, *Improving National Data for Vocational Education: Strengthening A Multiform System* (Berkeley, CA: National Center for Research in Vocational Education, 1993) p. 35.

TECHNICAL NOTES

Accuracy of Estimates

The statistics in this report are estimates derived from samples. Two broad categories of error occur in such estimates: sampling and nonsampling error. Sampling errors happen because observations are made only on samples of students, not on entire populations. Nonsampling errors occur not only in surveys of sample groups but also in complete censuses of entire populations.

Nonsampling errors can be caused by a number of factors: inability to obtain complete information about all students in all schools in the sample (some students or schools refused to participate, or students participated but answered only certain items); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors in collecting, processing, sampling, and estimating missing data.

The accuracy of a survey result is determined by the effect of sampling and nonsampling errors. In surveys with sample sizes as large as those used in this report, the sampling errors generally are not the primary concern, except where separate estimates are made for relatively small subpopulations, such as Asians or Native Americans. In this report, small sample sizes were generally not a problem.

Complex Sampling

The 1987 and 1990 HSTS, NAEP, HS&B, NALS, NELS:88, NPSAS:90, SASS, and SIPP all use multistage sample designs. The resulting samples, while representative, are not simple random samples. For example, students in both HSTS and in HS&B were initially selected within high schools that were grouped within strata. Because of the effects of the multistage designs (students within schools and schools within strata) and because of the effects of certain adjustments to the sampling weights (poststratification and weighting adjustments), observations made on different students cannot be assumed to be independent of one another. As a result, ordinary formulas used to estimate the variance of sample statistics, based on assumptions of independence and simple random samples, will tend to underestimate the true sample variability. To overcome this problem, standard errors for most estimates in this report were calculated using either replication procedures or Taylor residual techniques. The standard errors for the estimates using SIPP were calculated using generalized variance equations.

All estimates, standard errors, unweighted Ns, and weighted Ns are available from NCES in comma-separated form for use with all major spreadsheet software and microcomputers. In addition, hard copies of the taxonomies used to categorize courses and programs are also available, as well as hard copies of the standard errors, unweighted Ns, and weighted Ns for tables in appendix A. Those interested in this information should contact the Data Development Division, National Center for Education Statistics, 555 New Jersey Avenue NW, Washington, D.C. 20208.

Statistical Procedures

Most statistical tests used in this report were based on t statistics, and included estimates of the probability of a Type I error, or significance level. The significance levels were determined by calculating t values for the differences between each pair of means or proportions and by comparing these to published tables of significance levels for two-tailed hypothesis testing. These t values may be computed for comparisons using independent estimates with the following formula:

$$t = \frac{P_1 - P_2}{\sqrt{se_1^2 + se_2^2}}$$

where P_1 and P_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors.

In some cases, comparisons within and among rows or columns of data were made, and one of several tests of dependence was used. These tests included linear trend and chi-square tests for tables of proportions, and weighted least squares (WLS) regression and analysis of variance (ANOVA) for tables of means. Linear trend and WLS tests were used to examine whether an increasing or decreasing trend existed within a single row or column of ordered data and to compare rows or columns of ordered data. Chi-square and ANOVA tests were used to compare rows or columns of unordered data.

Multiple Comparisons

As the number of comparisons on the same set of data increases, so does the likelihood that the *t* value for at least one of the comparisons will exceed 1.96 simply due to increases in sampling error. For a single comparison, there is a 5 percent chance that the *t* value will exceed 1.96 due to sampling error. For five tests, the risk of getting at least one *t* value that high increases to 23 percent, and for 20 comparisons, 64 percent.

One way to compensate for this risk when making multiple comparisons is to adjust the alpha level to take into account the number of comparisons being made. For example, rather than establishing an alpha level of 0.05 for a single comparison, the alpha level is set to ensure that the likelihood is less than 0.05 that the *t* value for any of the comparisons exceeds the critical value by chance alone when there are truly no differences for any of the comparisons. This Bonferroni adjustment is calculated by taking the desired alpha level and dividing it by the number of possible comparisons, based on the variables(s) being compared. The *t* value corresponding to the revised lower alpha level must be exceeded in order for any of the comparisons to be considered significant. For example, to test for differences in dropout rates between whites, blacks, and Hispanics, the following steps would be involved:

- Establish the number of comparisons—in this case three (whites and blacks, whites and Hispanics, and blacks and Hispanics). The number of two-way comparisons that can be made equals [(n)(n-1)]/2, where n is the number of variable categories. Thus, with three categories, the number of possible comparisons is [(3)(2)]/2 = 3.
- Divide the desired alpha level, 0.05, by the number of comparisons (e.g., three) to obtain the new alpha level (0.05/3 = 0.0166).
- Consult a table of *t* statistics (or the standard normal table for *z* values if the N is large) to find the two-tailed *t* value that corresponds to that alpha ($t = 2.39$ for alpha = 0.0166).

All comparisons in this report were tested using the Bonferroni adjustment for the *t* tests. Where categories of two variables were involved, the number of comparisons used to make the Bonferroni adjustment was based on the relationship(s) being tested.

APPENDIX C

GLOSSARY

GLOSSARY

Academic subjects: The high school academic curriculum is divided into the main subject areas listed below. These courses are not exhaustive of the courses included in each subject area.

Mathematics: Courses at the level "less than Algebra 1" include basic math, general math, applied math, and pre-algebra; courses at the level "Algebra 1 or higher" include Algebra 1, geometry, advanced math (including Algebra 2 and 3, trigonometry, analytic geometry, precalculus, and probability and statistics), and calculus.

Science: Includes courses in biology, chemistry, and physics, as well as survey courses and those in other areas.

English: Includes survey and skills courses, as well as courses in literature, composition and writing, and speech.

Social studies: Includes courses in American history, world history, American government and politics, social sciences such as economics and anthropology, and humanities such as philosophy.

Fine arts: Includes courses that fulfill a general art requirement, as well as performing arts and advanced courses. Media courses include arts and crafts, music, drama, and dance.

Foreign languages: Includes all courses that teach second languages, including English as a second language, as well as classes in languages other than English.

Carnegie unit: A standard of measurement used for secondary education that represents the completion of a course that meets 1 period per day for 1 year. See **credit**.

College prep/College preparatory: See **specialization**.

Community college: A public 2- to 3-year postsecondary institution. See **postsecondary institutions**.

Comprehensive high school: See **high school types**.

Concentrator: See **program concentration**.

Cooperative education and work experience: See **school-to-work transition programs**.

Courses completed: Students were said to have completed a course in a subject area if they earned a Carnegie unit, or a fraction of a unit, in that subject area.

Credit: For simplicity's sake, the publication refers to a Carnegie unit as a credit. See **Carnegie unit**.

Curriculum types: At its most aggregated level, the Secondary School Taxonomy divides the high school curriculum into three distinct curricula:

Academic: See **academic subjects**.

Vocational: See **vocational education**.

Personal use/other: Included in this curriculum are courses intended for personal development, such as courses in driver's education, personal health and physical education, religion, and military science.

Degrees: See **postsecondary award types**.

Dependency status: Postsecondary students reported whether they were financially dependent on or independent from their parents.

Disability status: Postsecondary students were classified as disabled if they reported any of the following disabling conditions:

Physically impaired: Includes either deafness, speech impairment, orthopedic impairment, visual impairment, or other health impairment, but not learning disability.

Learning disabled: Includes learning disability only.

Multiple disabilities: Includes two or more of the following disabilities: deafness, speech impairment, orthopedic impairment, visual impairment, other health impairment, and learning disability.

Employment status: Persons who reported working for pay were classified by full- or part-time status:

Employed full time: A person was said to have been employed full time if that person worked on average 35 or more hours per week.

Employed part time: A person was said to have been employed part time if that person worked on average fewer than 35 hours per week.

Family background: A composite variable created from data on postsecondary students' family income (for dependent students only); father's and mother's education levels; and father's and mother's occupations, which were assigned values from the Duncan socioeconomic index (SEI) indicating the social value of occupations.

Handicap status: High school students were classified as either handicapped or not handicapped based on teacher and parent reports of student handicap status in the eighth grade.

High school types: Public high schools were classified into the following types:

Comprehensive high school: The typical U.S. high school, offering, at minimum, academic studies and usually some vocational education.

Vocational school: Vocational schools, including full-time vocational high schools and area or regional vocational schools. See **vocational school**.

Inmate: A person incarcerated in either a federal or state prison.

Minority status: Persons were classified as belonging to a minority group, if they were black, non-Hispanic; Hispanic; Asian; or Native American. See **race–ethnicity**.

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New Basics standards: The coursework standards recommended by *A Nation At Risk* for noncollege-bound high school graduates included 4 years of English, 3 years of math, 3 years of science, 3 years of social studies, and a half year of computer science.

Nonbaccalaureate student: A postsecondary student who reported that he or she was seeking less than a bachelor's degree.

Nonvocational teacher: See **teaching assignment**.

Occupationally specific education: Another term for specific labor market preparation. See **vocational education**.

Postsecondary attendance: A student was said to have attended a postsecondary institution if the institution reported that the student was enrolled during academic year 1989–90.

Postsecondary award types: Certificates and degrees awarded by postsecondary institutions are defined as follows:

Certificate: An award granted for the successful completion of a program of studies, requiring less than 4 years (or equivalent) of full-time college-level study. Certificates are usually awarded in a vocational field, and may cover the same coursework as a vocational associate's degree, but without the general education requirements.

Associate's degree: A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or equivalent) of full-time college-level study. This includes degrees awarded in vocational and nonvocational fields.

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college-level study. This includes degrees granted in a cooperative or work-study program.

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree.

Doctor's degree: An earned degree carrying the title of Doctor. Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading.

First-professional degree: A degree that signifies both completion of the academic requirement for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is usually based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 academic years of work to complete the degree program, including both previously required college work and the professional program itself.

Postsecondary institutions: Institutions are defined as follows:

Public 4-year: Includes public, baccalaureate degree-granting institutions.

Private, nonprofit 4-year: Includes private, baccalaureate degree-granting institutions.

Public 2- to 3-year: Includes public, less-than-4-year degree-granting institutions. See **community college**.

Public vocational–technical institute: Includes public, less-than-4-year nondegree-granting institutions.

Private proprietary: Includes private, for-profit less-than-4-year institutions.

Private less-than-4-year: Includes private, nonprofit less-than-4-year institutions.

Postsecondary major: See **postsecondary program type**.

Postsecondary program type: Nonbaccalaureate programs are classified into the following areas:

Academic: Includes mathematics and science; letters, humanities, and communications; social science; art and design; and education, among others.

Vocational: Includes program areas listed under postsecondary **vocational program areas**.

Other: Includes personal or avocational courses, such as basic skills, citizenship activities, health-related knowledge and skills, interpersonal and social skills, leisure and recreational activities, and personal awareness and self-improvement.

Program concentration: High school students were classified as vocational program concentrators if they earned 3 or more Carnegie units in a single vocational program area.

Race–ethnicity: Classification indicating general racial or ethnic heritage based on self-identification. These categories are in accordance with the classification scheme presented below:

White, non-Hispanic: A person having origins in any of the peoples of Europe, North Africa, or the Middle East, excluding persons of Hispanic origin.

Black, non-Hispanic: A person having origins in any of the black racial groups in Africa, excluding persons of Hispanic origin.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Asian: A person having origins in any of the peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands including, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

Native American: A person having origins in any of the peoples of North America and maintaining cultural identification through tribal affiliation or community recognition. This category includes Alaskan Natives. NCES survey forms use the term *American Indian/Alaskan Native* when collecting data on this population.

Related employment: Persons were considered to be employed in a related field if their postsecondary vocational field of study was related to their occupation.

School-to-work transition programs: Includes the following programs:

Tech prep: Programs consisting of the 2 or 4 years of secondary school preceding graduation and 2 years of higher education, or an apprenticeship program of at least 2 years following secondary instruction, with a common core of required proficiency in mathematics, science, communications, and technologies, designed to lead to an associate degree or certificate in a specific career field. Also referred to as 2+2 programs.

Apprenticeship training: Programs registered with the Department of Labor or a state apprenticeship agency in accordance with the Act of August 16, 1937, commonly known as the National Apprenticeship Act, which is conducted or sponsored by an employer, a group of employers, or a joint apprenticeship committee representing both employers and a union, and which contains all terms and conditions for the qualification, recruitment, selection, employment, and training of apprentices.

School-based enterprise: A class-related activity that engages students in producing goods or services for sale or use to people other than the participating students themselves.

Cooperative education: Allows students to earn school credit in conjunction with paid or unpaid employment that is in their vocational field of study. These programs usually involve employers in developing a training plan and evaluating students.

Work experience: Allows students to earn school credit in conjunction with paid or unpaid employment. In contrast with cooperative education programs, these programs may or may not involve employment that is in the student's vocational field of study or involve employers in developing a training plan and evaluating students.

Socioeconomic status: Constructed from data on father's occupation, father's education, mother's education, family income, and material possessions in the household. See **family background**.

Special education: Curriculum provided to secondary students who have a disability and have developed an Individualized Education Plan (IEP).

Special populations: The federal regulations pertaining to the Carl D. Perkins Vocational and Applied Technology Education Act of 1990 define special populations as individuals with disabilities, educationally and economically disadvantaged individuals, individuals of limited English proficiency, individuals who participate in programs designed to eliminate sex bias, and individuals in correctional institutions.

Specialization: Students were classified as college prep or vocational specialists, or as nonspecialists, according to the following criteria:

College prep/College preparatory: High school students who earned 4 or more Carnegie units in English; 3 or more Carnegie units in math, with 1 of those units in algebra or higher; 3 or more Carnegie units in science, with 1 or more of those units in chemistry or physics; and 2 or more Carnegie units in a single foreign language; and who did not meet the vocational specialist criteria were all classified as college prep specialists.

Vocational: High school students who earned 4 or more Carnegie units in a single vocational program area, with at least 2 of those units in a second or later course in the sequence, were classified as vocational specialists. Students who met both the vocational specialist and college prep criteria were classified as vocational specialists in the NELS tables (tables 1-49). In the NAEP tables (tables 105-108), they were classified as college prep.

Other: High school students who met neither specialization criteria were classified as nonspecialists.

Specialty courses: Nonsequential courses in a vocational program area, usually covering topics of special interest to students.

Teaching assignment: Teachers of grades 9-12 were assigned vocational teaching status if 50 percent or more of the courses they taught were in a vocational area as defined by the Secondary School Taxonomy, or their primary assignment was in a vocational area when course information was not available.

Tech prep: See **school-to-work transition programs**.

Urbanicity: Schools were classified based on standards used by the U.S. Census:

Urban: A school was located in the central city of a Standard Metropolitan Statistical Area (SMSA).

Suburban: A school was located either (1) within a SMSA, but outside the central city; or (2) outside a SMSA, but in a town with a population of 2,500 or more and that was defined as urban.

Rural: A school was located in a community with a population of less than 2,500 and that was defined as rural.

Vocational education: Organized educational programs, services, and activities that are directly related to the preparation of individuals for paid or unpaid employment or for additional preparation for a career, requiring other than a bachelor's or an advanced degree. This publication refers to the following types of vocational education at the high school level:

Consumer and homemaking education: Consists of courses intended to prepare students for roles outside the paid labor market. Topics covered include child care, meal preparation, nutrition, and household management.

General labor market preparation: Consists of courses that teach general employment skills but do not have as their primary objective preparing students for paid employment in a specific field. These courses include introductory typewriting, industrial arts, career education, agricultural math, and business English, among others.

Specific labor market preparation: Consists of courses that teach skills and provide information required in a particular vocation. Courses are organized into first-level, second- or higher level, and specialty courses. See **occupationally specific education** and **vocational program areas**.

Vocational program areas:
Secondary level:

Agriculture: Includes courses that prepare students for employment in farming, horticulture, fishing, or forestry. In addition, courses in natural resources teach skills in conservation, wildlife, forestry, logging, and paper production.

Business and office: Offers training in business support and business management, including data processing, accounting, shorthand, stenography, advanced typing, and recordkeeping, as well as finance, investments, personnel, and other aspects of management. Also included are courses in library science and security services.

Marketing and distribution: Includes courses related to the selling and distribution of goods and services, teaching skills ranging from cash register operation to marketing and management research (once called distributive education).

Health: Includes courses intended to prepare students for careers in the health professions, such as those that train students to become nurses and dental assistants, lab technicians, and ambulance operators.

Occupational home economics: Includes courses intended to prepare students for employment in the service sector, such as child care, food preparation, cleaning services, plant maintenance, cosmetology, and fashion and interior design. Unlike consumer and homemaking education, occupational home economics emphasizes skills and training for the paid labor force.

Trade and industry: Includes coursework in construction, mechanics and repairs, precision production, and transportation. Construction includes courses in carpentry, plumbing, electrical wiring, and welding. Mechanics and repairs includes courses in repairing a variety of consumer goods. Precision production includes courses that teach students how to design and manufacture goods, such as woodworking, graphic design, printing, sheet metal, and architecture.

Technical and communications: Includes courses related to skills used in television and radio, as well as computer courses such as programming.

Postsecondary level:

Agriculture: Includes courses in agricultural business and production including horticulture, agricultural sciences such as animal sciences, and conservation and renewable natural resources.

Business and office: Includes courses in business administration and management such as accounting, and in administrative and secretarial services such as typing and word-processing.

Marketing and distribution: Includes courses in the marketing operations of apparel and accessories, business and personal services, financial services, and hospitality and recreation, as well as retailing and wholesaling operations.

Health: Includes courses in nursing and other allied health fields such as dental and physical therapy assisting, and in health sciences such as medical laboratory and clinical anatomy.

Home economics: Includes courses in family and community studies, foods and nutrition science, child care provider/assistant, and clothing, apparel, and textile workers and managers.

Technical education: Includes the following subgroupings:

Protective services: Includes courses in criminal justice and fire protection.

Computers/data processing: Includes courses in computer programming, data processing, and computer and information sciences.

Engineering/science technologies: Includes courses in architectural engineering technology; computer engineering technology; heating, air conditioning, and refrigeration technology; industrial/manufacturing technology; biological technology; and nuclear and industrial radiologic technologies.

Communication technologies: Includes courses in educational media, photographic technology, and radio and television broadcasting technology.

Trade and industry: Includes courses in construction; automotive and other mechanics and repairers; drafting and other precision production; transportation and materials moving; and consumer, personal, and miscellaneous services.

Vocational teacher: See **teaching assignment**.

Vocational school: Includes full-time vocational high schools and area or regional vocational schools. The latter type of school may serve postsecondary and adult students in addition to high school students.

Vocational-technical institute: See **postsecondary institution types**.

APPENDIX D

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